# Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

May 8, 1961


PMA MEETING REPORT PAGE 41


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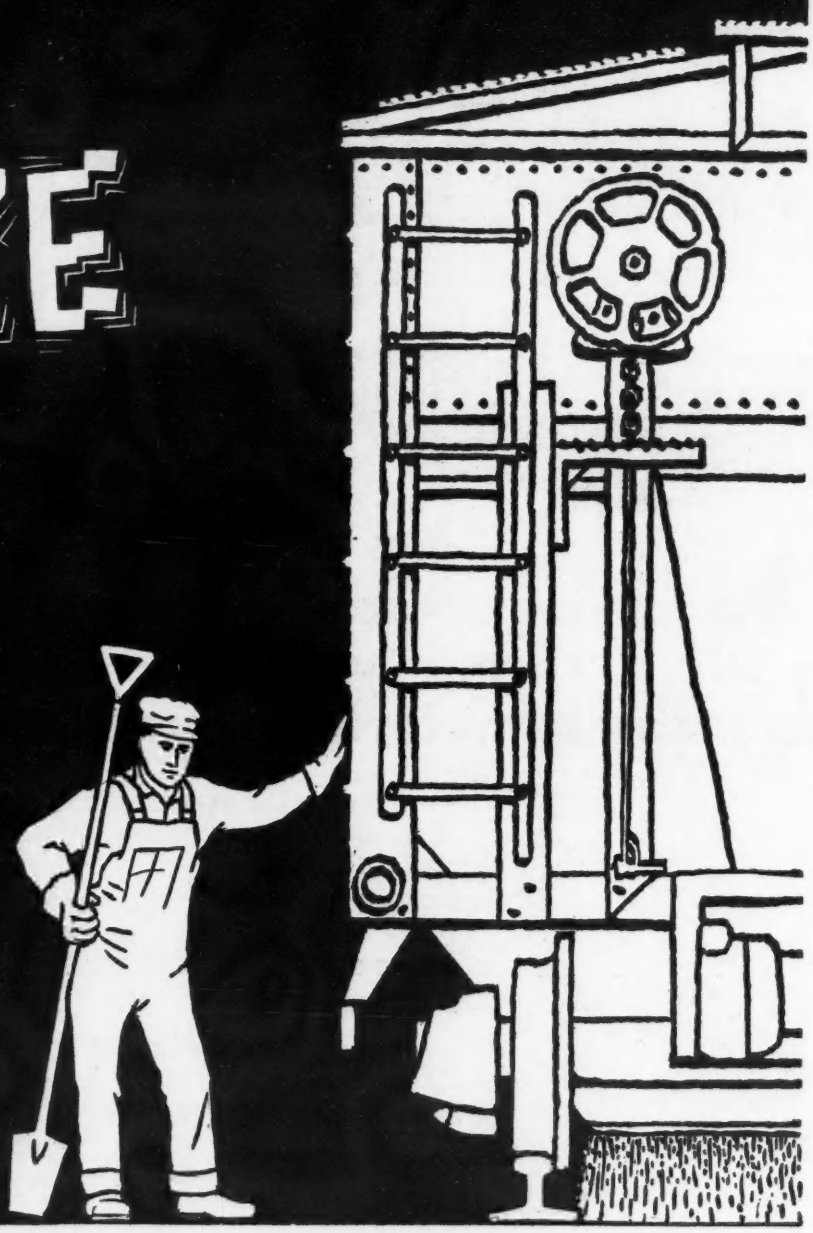

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Oil, Paint and Drug Reporter

Vol. 179 No. 19 30 Church St., New York 7, N.Y. May 8, 1961

# Foreign Trade: Plus Side

Chemical prices may not be so firmly established on the high side as some in the industry would like. And, in the minds of certain people, production totals probably could be a little better than they are. But the industry has one thing going for it on the plus side of the ledger.

It is more than holding its own on foreign trade by establishing new records for first-quarter exports, the first-quarter imports and for the month of March alone. The doldrums that hit this phase of the chemical industry in the first month of this year have been completely dissipated.

Preliminary estimates released last week by Bureau of the Census tell a story of steadily increasing business in the exports and imports of chemicals by the US industry.

From the low point of $121.5 million in January, exports of chemicals and related products rose to $145.3 million in February and jumped to a record high of $158.6 million in March. This gave a total for the first quarter of $425.4 million, the highest first quarter on record.

A similar story is told in the import figures. From the low point of $27.4 million in January, imports went up to $31.1 million in February and then hit a record high of $40.3 million in March, making a first-quarter total of $98.8 million, a new record.

Last year, March exports amounted to $146.7 million and the first-quarter exports were $400.8 million. Imports in March last year were $37.7 million and the total for the quarter was $92.8 million.

But while the chemical industry was enjoying the heights of new record levels, the rest of the foreign trade community was still caught in the effects of last year's business downturn.

Exports of all merchandise during

—Continued on page 59

# FDA's Latest Bit of Strategy: Make One Proposal From Many And Then Hope for the Best

One big legislative proposal in place of several little proposals. That is the strategy of Food & Drug Administration. Right now the agency is busy reworking into a single package for submission to congress a whole batch of former proposals which it hopes to see made into law. Included are provisions for: a cosmetic pre-testing law, newer and closer controls over barbiturates and amphetamines, a broader program of factory inspection, certification of all antibiotics, efficacy standards for all new drugs, and a government okay on all new medical devices.

**FDA's Draft Nearly Complete**

Deputy Food & Drug Commissioner John L. Harvey, who is directing the work of preparing the legislation, says the job is nearly complete and that he expects to submit it to his chief, Secretary of Health, Education & Welfare Abraham Ribicoff, in a few weeks.

While drafting of the omnibus bill is not at the direction of Mr. Ribicoff, the secretary is acquainted with the fact that it is being done.

The bill embraces all of the legislative proposals that were discussed with Mr. Ribicoff last December—before he took over direction of the HEW department—and broadly approved by him at that time.

There is no certainty, however, that the form of the bill may not be changed before it goes to congress. The White House may have something to say on this matter before it is transmitted.

In effect, the bill may very well be the Kennedy administration's answer to the Kefauver-Celler drug industry antitrust bill (S 1552) for closer controls over the drug industry and those industries closely associated with it.

Right now, it is not being touted as such, however, but simply as an omnibus FDA proposal whose enactment is deemed desirable.

Mr. Harvey, who has handled most of FDA's legislative programs in congress for a number of years, admits that an omnibus bill of this kind is an open invi-

—Continued on page 27

**TOP MAN: Elmer G. Smith, chosen president of American Plastics Corporation, Bainbridge, N.Y., subsidiary of Hayden Newport Chemical Corporation. He succeeds the late John A. Parsons.**

# Maleic Hydrazide ('MH-30') Darker Due to a Smoke Cloud From USDA

A big cloud of dark smoke has just been placed over the future market for maleic hydrazide in the nation's tobacco growing industry. In a special report from Department of Agriculture last week, USDA scientists assert that "MH-30" changes the chemical and physical properties of the leaf, presenting a potential hazard to the cigarette leaf industry. The controversy, however, is by no means settled. Naugatuck Chemical Division of US Rubber Company, producer of the chemical, finds the report substantially supporting its contention "that proper use of 'MH-30' will result in tobacco equally as good as hand-suckered tobacco."

**MOVES UP: Dr. John H. Long, elected a vice-president and member of the executive committee of Hercules Powder Company, Wilmington, Del., a company with which he has been associated since 1933.**

The company's spokesman, Dr. H. D. Tate, manager of agricultural chemical research and development, also has an interpretation of the USDA findings.

**Does Not Lower Quality**

"While the report says the chemical may cause slight chemical and physical changes in a tobaco leaf," he notes, "the major point emerging from the study is that 'MH-30' does not lower tobacco quality when it is properly applied.

"The report also points out that the chemical is a labor-saver, materially reduces the cost of suckering tobacco and increases acreage yields."

The study was undertaken by USDA at the direction of the house committee on agriculture. It was intended to settle a long-standing dispute between growers and cigarette industry men.

The growers, finding 'MH-30' an effective cost-cutter, have insisted it has no harmful effects on the tobacco and causes no reduction in "filling capacity."

While cigarette industry spokesmen have concentrated on the chemical's "harmful effects," it was felt that their chief objection related to yield or "filling capacity."

The department's report would seem to support the latter contention, at least.

"The loss in filling capacity alone," the

—Continued on page 30

# Toluene and Xylene Face an Import Tax

Toluene and xylene of petroleum origin may soon be subjected to an import tax by the Bureau of Customs. The bureau let it be known last week that it is reconsidering the tax-free status of these products.

The bureau is in favor of declaring them subject to the petroleum tax provisions of the 1954 internal revenue code because of their petroleum origin.

From a tariff standpoint, toluene and xylene are classified as free of duty under paragraph 1651 of the 1930 tariff law. It has also been the practice to classify the products free of import tax, but the bureau now believes this may be in error

—Continued on page 31

# Quinine Sale Stymied; GSA Will Try Again

General Services Administration has had another setback in its effort to sell the government's unwanted stocks of quinine but the agency isn't giving up. It will try again later this month.

Last week, GSA offered 1,130,532 ounces of quinine hydrochloride powder for sale to the highest bidder. It received four offers for the material, but none was at a price acceptable to the agency.

Each of the offers was rejected, but with

—Continued on page 27

# Polypropylene Pact Inked By Grace and Montecatini

W. R. Grace & Co., is getting deeper into polyolefin markets. This time it's polypropylene. The New York firm has signed an agreement with Chemore Corporation, US representative for Montecatini Societa Generale, Milan, Italy, to cooperate in marketing of polypropylene in this country.

Grace's polymer chemical division will

—Continued on page 59

# FDA, FTC and the USDA Go Under House Scrutiny

How well is the Food & Drug Administration protecting the interests of the consumer in its dealings with industries it regulates? Is the Federal Trade Commission doing the job expected of it from the consumer's standpoint? Does the Department of Agriculture give adequate consideration to consumer interest in its meat inspection work?

These and similar questions, all aimed at developing a broad picture of where the consumer stands in the day-to-day consideration of the government, are the basis of a broad study now under way by the Fountain committee of the house.

Aides of the committee said last week that all departments and agencies of the government, which have any contact with consumers, are being asked to file a report by the end of this month, detailing

—Continued on page 27

# Carbide and Swedish Firm Slate Polyethylene Venture

Union Carbide Corporation, New York, will join with Superfosfat Fabriks Aktiebolog (Fosfatbolaget), Stockholm, to put up a 35-million-pound-a-year polyethylene plant in Sweden.

The facility, located on a large site in the southwestern part of Sweden near Gothenburg, will be completed in 1962. It will be the first polyethylene plant in that country, Carbide says.

The area to be served by the plant in-

—Continued on page 53

# Business Upturn Gaining, But P. A.'s Shun 'Cloud 9'

Substantial improvement is noted by purchasing executives in their April reports. There can no longer be doubt that the dynamics of business recovery have been set in motion. The upturn, first signaled by our members in January, shows further strength in the current reports.

Only once in the last five and one-half years has so large a percentage (58) reported improvement in new orders, and that was in September, 1958.

*This report was prepared by the Business Survey Committee of the National Association of Purchasing Agents.*

Production is keeping pace with new order placement. The 48 percent reporting higher production levels is the largest number since the pre-steel strike month of May, 1955; and, the 12 percent reporting lower production levels is the lowest since July, 1959—the month the steel strike started.

| *New Orders* | *Better* | *Same* | *Worse* |
|---|---|---|---|
| April | 58 | 33 | 9 |
| March | 32 | 48 | 20 |
| Production | | | |
| April | 48 | 40 | 12 |
| March | 29 | 52 | 19 |

While the above figures reveal that the recovery is under way, the remarks of our members warn us not to get on "cloud 9" yet. The question raised is at what pace and to what extent will the recovery progress. A definite note of "caution" permeates the comments; some members are keeping their fingers crossed for a "fair" second quarter and a "better" third quarter, while others point to the possible automobile strike and the pending July-August vacation shutdowns as potential dampers on the recovery.

Many indicate that they are keeping a

—Continued on page 52

## *Asarco Goes Commercial On Its High-Purity Metals*

American Smelting & Refining Company, New York, is going commercial on nine of its high-purity metals: antimony, arsenic, bismuth, cadmium, gold, indium, selenium, silver and tellurium.

Until now, the materials had been available only in laboratory quantities. But, because of increased demand from industry, they have been made "off-the-shelf" items.

# Lead and Zinc Marketing Tools: Price Stability, More Promotion

Price stability and intensified promotional campaigns. With these tools, lead and zinc men hope to retain and expand markets which have been under increasing pressure from such high-stepping competitors as aluminum and plastics. In a discussion of the problem at last week's joint meeting of the American Zinc Institute and Lead Industries Association (see another article on page 7) in Chicago, R. Lewis Stubbs, of London, England, noted with concern that in the US both lead and zinc consumption are now lower than in 1950.

Mr. Stubbs, who is director-general of England's Lead Development Association and Zinc Development Association, found it significant that in the same period aluminum production doubled while plastics scored even sharper gains.

**Drop in Lead Cable Coverings**

For lead, the most significant change was found to be in cable coverings, which are now taking only 60,000 tons a year as compared with 140,000 tons ten years earlier.

"However," said Mr. Stubbs, "these variations do not account for the overall decline in consumption, nor does the lower production of automobiles and the possible saturation of the market for consumer goods, even though they have obviously played their part."

"During the period about which we are speaking," he went on, "your population grew by 26 million, nearly 15 percent, and industrial production rose by over 20 percent."

Here, said Mr. Stubbs, are some solutions to the problem now being put forward by the newly-organized International Lead & Zinc Study Group:

- An expanded research program, looking toward new applications.
- Increased promotional work pointing up "the many valuable properties and existing uses of lead and zinc."

Since the pay-off for research can be long in coming, Mr. Stubbs indicated that the second approach should be given the main emphasis right now.

"The group," he went on, "is also going to study measures for achieving long-term price stability for lead and zinc, including commodity agreements.

"Whether such arrangements will ever be necessary and whether they would be adopted and welcomed by industry remains to be seen."

### *Hercules Is Renaming Operating Departments*

Hercules Powder Company, when the first of July rolls around, will have changed the designation of a number of operating departments.

The old Virginia Cellulose unit will become the explosives, synthetics, cellulose and protein products departments. The cellulose products department will become the polymers department, and the old naval stores and paper makers chemical departments will be renamed the pine and paper chemicals departments.

## Acetylene Process: Companies Team Up

Delhi-Taylor Oil Corporation and Hydrocarbon Research, Inc., have just teamed up to bring to the chemical industry what they call a superior acetylene process utilizing patents and technology of the two companies.

Hydrocarbon Research will be the licensing agent for the Delhi-HRI process. This method will produce highly-purified acetylene with higher yield than existing processes and reduce oxygen consumption, it is reported.

The hydrocarbons are mixed cold with the oxygen and preheated together before reaction, using high velocity and low residence times.

Delhi-Taylor, whose chemical department is headquartered in New York, has over a period of several years conducted extensive pilot-plant studies in the manufacture and purification of acetylene from hydrocarbons.

Hydrocarbon Research, a New York-based engineering company, has carried on similar research simultaneously.

## Harshaw-Coiffe Expanding, 'Poulenc' Is Added to Name

Harshaw-Coiffe SA, jointly-owned by Harshaw Chemical Company and Societe des Usines Chimiques Rhone-Poulenc, will expand its operations in the production of ceramic supplies, catalysts and certain pigments at Limoges, France.

Concurrently, the company is changing its name to Harshaw-Poulenc-Coiffe SA, with Paul Coiffe continuing as managing director.

## British Oxygen Co. Hikes Prices on Industrial Gases

British Oxygen Company has raised prices on industrial gases by 5 to 10 percent. The first such increase since 1957, it was triggered by the new tax on heavy oils in the UK.

The company has been declaring for months that lowering profit margins on its domestic business made increases inevitable. Recently a disproportionately large fraction of British Oxygen's earnings have been coming from foreign operations where prices are more satisfactory.

## *The Week's Price Changes*

Casein, Copper, Molasses, Rosemary Oil, Tall Oil Advanced. Glycerine, Mercury, Soybean Meal, Triacetin Reduced.

**Prices Advanced**

Casein, Argentine, ½c. per lb. (p. 57).
Coconut oil, crude, ⅛c. per lb. (p. 59).
Copper, 1c. per lb. (p. 28).
Lard, cash, 1/5c. per lb. (p. 59).
Lemon oil, Messina, 75c. per lb. (p. 59).
Lignaloe wood oil, Mexican, 15c. per lb. (p. 54).
Molasses, New Orleans, ½c. per gal. (p. 58).
Pennyroyal oil, imported, 40c. per lb. (p. 54).
Rosemary oil, Spanish, tech., 30c. per lb. (p. 54).
Tall oil, refd., 1c. per lb. (p. 59).

**Prices Reduced**

Cardamom oil, $1 per lb. (p. 54).
Cottonseed oil, crude, ⅛c. per lb. (p. 59).
Refd., ⅛c. per lb. (p. 59).
Glycerine, nat'l refd., syn., 2¼c. per lb. (p. 38).
Mercury, $6 per flk. (p. 28).
Peanut oil, crude, ¼c. per lb. (p. 59).
Refd., ¼c. per lb. (p. 59).
Soybean meal, $2 per ton (p. 59).
Soybean oil, crude, ¼c. per lb. (p. 59).
Refd., ¼c. per lb. (p. 59).
Triacetin, 1c. per lb. (p. 38).
Tung oil, ½c. per lb. (p. 59).

**OPD Price Index**

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:

(100=1949 average)

| May 5, 1961 | April 28, 1961 | May 9, 1960 |
|---|---|---|
| 113.05 | 113.02 | 110.38 |

# Research: A Hinge for Chemicals

Chances for the chemical industry to continue its dynamic growth now hinge on research. Successes in the laboratory are expected to open up new marketing opportunities for competition with glass and paper, cotton and wool, lumber, leather and metals. But all is not well on the research front. Costs are rising and the profit squeeze is limiting the availability of retained earnings to finance research. On top of that, more and more research cash is being drained in testing for hazard and toxicity under expanding government regulations. Such, at least, is the picture emerging from speeches last week by two of the industry's prominent spokesman.

Paul Mayfield, a vice-president of Hercules Powder Company, addressing the fourteenth convention of the National Federation of Financial Analysts Societies in Richmond, Va., predicted that the industry's next big breakthrough would carry it into the building materials field.

The ability to control costs, to simplify fabrication, to provide pre-determined weight, strength and durability give manmade materials the edge over natural materials in this field, Mr. Mayfield pointed out.

Further, he said, the growth of chemical research has become a matter of ne-

—*Continued on page 59*

**IN INDUSTRY POST: Dee Belveal, named vice-president and general sales manager of Rearden Company, St. Louis, Mo. He had been executive vice-president of Retail Paint & Wallpaper Distributors of America.**

## Tidewater Names Bechtel To Build Isocracking Unit

Tidewater Oil Company, Los Angeles, has selected Bechtel Corporation, San Francisco, as prime contractor for construction of what is said to be the west coast's first large commercial isocracking plant. The unit will be located at Tidewater's Avon refinery in the San Francisco Bay area.

Construction of the new plant, which will cost in excess of $20 million, will begin this month, with completion slated for mid-1962, a Tidewater spokesman says.

The facilities will include a catalytic pre-treater unit and an isocracking unit, each sized at 20,000 barrels a day, plus a 50-million-cubic-foot-a-day hydrogen generating plant.

The new process will be licensed from California Research Corporation.

## Silicone Cream Catalyst Offered by Oxy Chemical

A new, non-separating silicone cream catalyst, 2,4,dichlorobenzoyl peroxide in silicone oil, is now being produced by Oxy Chemical Company, Nixon, N.J., and distributed by Kramer Chemicals, Inc., Fair Lawn, N.J.

Oxy Chemical Company, reportedly the first national producer of organic peroxides to locate in New Jersey, started business last year with benzoyl, lauroyl and methyl ketone peroxides.

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**OIL, PAINT AND DRUG REPORTER**, Vol. 179, No. 19, May 8, 1961. Published weekly on Monday by Schnell Publishing Company, Inc., 30 Church Street, New York 7, N.Y., U.S.A. Second-Class postage paid at New York, N.Y. Single copy price: 50 cents. Subscription prices:—United States and Possessions, $5 a year; Canada and Newfoundland, $7; other countries, $12.

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**NEW DIRECTOR: N. Harvey Collisson, elected a director of Olin Mathieson Chemical Corporation, New York. He is senior vice-president and chairman of the president's staff committee.**

# Drug Producers Stealing March On Kefauver Friends and FDA With New Quality Control Plan

*A special nine-page section on last week's annual meeting of the Pharmaceutical Manufacturers Association in White Sulphur Springs, W. Va., starts on page 41 of this issue.*

Pharmaceutical producers are stealing a march on the Kefauver bill adherents in congress and the aims of Food & Drug Administration to have all new drugs in the future pass an "efficacy" test before they can be placed on the market. Manufacturers are moving quickly to put their houses in order by making certain that each product will be what it is intended to be—a product having "desired features, properties and characteristics of identity, purity, uniformity, potency and stability within established levels."

Producers agreed on this course of action last week in White Sulphur Springs, W. Va., when directors of the Pharmaceutical Manufacturers Association adopted a statement of general principles of control of quality in the drug industry.

**Caps Years of Agitation**

The action caps more than a dozen years of agitation, consideration and discussion of this problem in the industry.

Whether adoption of a statement of principles will have any effect upon the tone of drug control legislation slated for consideration later this year in congress, is problematical at the present time.

For one thing, it should be noted that it is simply an expression of policy by the industry that certain things should be done, but without any means of enforcement. For another, it reaches the matter of "efficacy" of a drug which is now being advocated so strongly in congress, only indirectly.

But, the statement points out, "the large variety of substances used in this industry, the complexity of its products, and the various types of company organizations make it impossible to design in detail a single universally applicable quality control system. The adequacy of any control system is measured by its effectiveness in attaining its purposes."

The statement says that "the quality of a medicinal product must be built into it during production. However, it is a basic principle of quality control that a production group should not be responsible for approving its final product for distribution. The person heading quality control should have the authority to approve satisfactory products, and to reject unsuitable products so that they are not distributed. He should be responsible to a level of management which enables him to exercise independent judgment."

Quality control systems are designed to provide for the proper functioning of personnel, machines and operation and encouragement of quality consciousness in all personnel, it is stated. The control

*—Continued on page 39*

**IN BUYING POST: Donald B. Black, named assistant manager of chemicals purchasing in the corporate purchasing department of Dow Chemical Company, Midland, Mich. His field will be the procurement of chemicals, except aromatics, in areas where there is corporate, company-wide interest.**

# Veterinary Drugs: USDA Prepares To Tighten Reins

Department of Agriculture plans to make it tougher to import biological products into the US for use in veterinary practice. The agency is also tightening up supervision over experimental production, distribution and evaluation of biological materials.

A series of amendments to existing rules relating to administration of the virus-serum-toxin act of 1913 were issued by the agency last week for comments of interested persons, and possibly public hearings.

**The 'Federal Register' Printed It**

Text of the proposed regulations was published in the *Federal Register* May 3 with a request for comments in thirty days.

The series of changes in the regulations would have this effect:

- Redefine the term "permittee."
- Provide that a US veterinary permit to import biological products shall be issued only to a person who resides in the US or operates a business establishment within the US.
- Require that the actual manufacturer agree in writing that the biological product to be imported will be prepared, tested, and labeled in accordance with regulations applicable to the particular product, and that each applicant for such permit furnish specified information regarding the method of production, facilities used for preparation and testing of the product, and the labeling and advertising of the product.
- Delete the requirement in existing rules that each application for permit be accompanied by an affidavit of the manufacturer presented before an American consular officer.
- Add new regulations covering experimental production distribution, and evaluation of biological products prior to issuance of a license.
- Set forth certain requirements regarding the labeling and packaging of biological products.
- Delete limitations on quantity of rabies vaccine in each batch, and provide for observation of tests during critical periods that fall on non-work days.

## Butyl-Lithium 'Solid' A New Development

Lithium Corporation of America has just developed a new "solid" form of n-butyl-lithium, which is said to have "vastly improved handling characteristics" over the conventional product. The new material is being described as a homogeneous suspension of n-butyl-lithium in a specially blended paraffin wax medium.

LCA's sales service department in New York reports that the product is now being turned out on a commercial basis.

The new "solid" n-butyl-lithium is nonpyrophoric and is classed as a flammable solid and is said to have good stability on moderate exposure to air. Compared to conventional forms, says LCA, the new one offers much greater convenience and safety in storage, shipping and use.

News of the development stirred considerable interest among makers and users of a product that runs to about 325,000 pounds of production a year. Of that total, LCA accounts for 150,000 pounds at Bessemer City, N.C. Other production is: American Potash Company, 75,000 pounds a year at Los Angeles, and Foote Mineral Company, 100,000 pounds at New Johnsonville, Tenn.

Lithium Corporation reports that the new "solid" form eliminates all special handling problems, yet may be used in practically all applications in which n-butyl-lithium solutions are ordinarily employed.

Formerly this chemical was commercially available only in hydrocarbon solutions. Because such solutions were pyrophoric, especially in high concentrations, they required special shipping and storage containers as well as unusual precautions in use. Handling costs were correspondingly higher and the special shipping containers had to be returned, LCA points out.

## Herbicide Facility Raises Allied Capacity 400 Percent

A new plant for "Urox" and "Urab" herbicides—permitting a 400 percent increase in production capacity—has gone on stream at the Baltimore, Md., works of Allied Chemical Corporation's General Chemical Division.

The plant building includes a modern warehouse to expedite supplies to industrial and agricultural consumers.

The facilities will meet an expanded

*—Continued on page 52*

## Water Pollution Measure Clears House Almost Intact

With but one minor change the house last week voted its approval of the Blatnik water pollution bill (HR 6441) to expand greatly the federal government's authority to enforce abatement programs on industries and communities, and doubling federal contributions towards payment of the costs of public projects.

The vote on the bill was 307 to 110 and it now goes to the senate where the probabilities are that it will be changed only slightly if at all. Since the bill carries most of the proposals advanced by the Kennedy administration, it is considered a sure bet to be signed into law when it reaches the White House.

## Cyanamid Buys Up A Pioneer in Plastics

American Cyanamid Company, New York, has just picked up Wasco Chemical Company, a Cambridge, Mass.-based pioneer in the development of acrylic products for the building industry. Cyanamid has had an eye on the company for some time, and a month ago (OPD, 4/3/61) let it be known that it was set to buy.

Terms of the purchase agreement include the exchange of approximately 40,000 shares of Cyanamid common stock for substantially the entire business and assets of Wasco.

Cyanamid will operate Wasco as a department of the company. Max Wasserman, founder and president of the twenty-six-year-old plastics firm, will remain as operating head of the new Wasco products department.

Wasco and its subsidiaries manufacture cast methyl methacrylate plastic sheets

*—Continued on page 32*

## Petrochems Boom in Italy

Italian production of petrochemicals last year reached an estimated 600,000 metric tons. This compares with 255,000 tons in 1959 and 131,400 tons in '58. Some experts estimate that Italy's internal demand for chemical products based on petrochemicals could grow at a rate close to 50 percent a year for the next five years.

## DuPont Piloting Polyamide, Starts Up Columbium Unit

E. I. duPont de Nemours & Co. has started construction of a new plant at Richmond, Va., for pilot production of "HT-1," a reportedly unique polyamide fiber designed to resist high temperatures. Completion has been scheduled for late 1962.

The product, arising out of more than twelve years of duPont research, is said to show great promise in electrical insulation, filtration of hot gases, special-duty beltings and reinforcement of high-temperature hose.

Applications in military uses are also being explored, duPont says.

Concurrently, the company is announcing the first production of mill products of columbian metal and columbium alloys at its new metals center in Baltimore, Md.

The new installation will turn out columbium and alloy sheet, strip, plate, bars, tubes and other shapes used by metal fabricators. The facility has been designed so that tantalum, tungsten and molybdenum can be added in the near future, a duPont spokesman points out. Prices for the columbium mill products average about $60 per pound.

### *Plastics for SE Asia: Interest Is on the Rise*

Southeast Asia is becoming much more plastics conscious. So says Schwartz Chemical Company, Long Island City, N. Y.

The firm reports it has had an increasing number of requests for information on its products from such places as Hong Kong, Taiwan, Vietnam and Indonesia. Specific interest, the company adds, has been shown in data on dyes, lacquers and coatings for the metallizing of plastics.

# Science on the Campus: Drug Man Wants It Basic

A leading spokesman for the drug industry would like to see more government dollars spent on basic science and fewer on the short-term objectives which are "turning American universities into mere discovery factories."

Dr. Max Tishler, recipient of the Industrial Research Institute's 1961 medal for leadership in industrial research, warns that unless university people devote more time to teaching future scientists, "the wells of discovery will eventually dry up."

Dr. Tishler, president of Merck, Sharp & Dohme Research Laboratories Division of Merck & Co., makes it clear that he has no quarrel with short-term objectives as such, but he feels they should be moved off the campus.

"The universities," he says, "should be provided with funds for free, creative and self-stimulated pursuit of new knowledge."

Dr. Tishler's comments were heard at a dinner of the institute in Boca Raton, Fla., last week at which he accepted the industrial research citation.

He recommended that federal appropriations be spread far more widely "in order to build the science capacities of an increasing number of institutions and to make excellence in both research and teaching available to a higher proportion of our next generation of students."

He pointed out that five institutions received nearly 60 percent of all federal funds for college and university research, and that only 287 out of a total of 1,940 US institutions of higher learning received any federal funds for research in the fiscal year 1959.

Dr. Tishler feels that federal research programs oriented toward specific goals he handled in separate research institutes

*—Continued on page 53*

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*tyro (tī'ro), a beginner in learning; novice; amateur (Webster's New Collegiate Dictionary)

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# *Lead: Can We Use It?*

Can the world find use for all the lead it insists on producing?

Perhaps—but lead men, though confident of the metal's market strength, are looking more and more toward the "glamour" areas of lead chemicals for that needed boost.

Reports on plastic-lead materials for sound control and the use of lead zirconate-titanate in solid state physics underscored this at last week's meeting of the Lead Industries Association in Chicago.

In terms of sound and vibration control, plastic-lead materials will serve two main functions, the meeting was told.

First, said Karl Bennung, president of Chemical Coatings & Engineering Company, they will effectively damp out vibrations in metal and other structures. Special hull damping formulations now used by the navy were cited as an example.

Second, he said, is the more universal problem of producing inexpensive building materials with low sound transmission.

Describing a group of leaded vinyl materials known as "Coustifab," Fred Hall, sales manager of Cordo Chemical Company, cited their growing use in soundproof folding doors, business machines, electronic equipment, helicopters and pipeline pressure reduction stations.

Does this represent any kind of real market for lead? Summing it up, Bruce Fader, of the Lead In-

—*Continued on page 32*

*For a related article on this meeting see page 4.*

**OPD Reports From Europe**

# American Chemical Firms' 'Find': It Was the German Market in 1960

American chemical companies found themselves a bonanza in the German market last year. Sales rose 40 percent over 1959, to a total of $207.5 million. This was more than the combined shipments into Germany from its five Common Market partners. With US chemical exports running three times German shipments to America, the chemical industry at least is doing its share to help Washington's problems with the German excess balance of payments. As a whole, German chemical imports last year were up at least 32 percent to $695 million—a record level—the first official figures for the whole year show.

**German Chemical Imports Pace Economy**

Chemical imports grew faster than imports as a whole for the booming German economy, accounting for 6.5 percent of the total in 1960 against 6 percent in 1959. At the same time, German exports rose to $1.5 billion, a gain of 13.6 percent against an 18 percent jump in 1959.

The imports from the US emphasize the declining importance of chemical raw materials in the German chemical trade and the rising share of intermediate and end product imports. Chemical raw materials imported by Germany last year dipped to 11.4 percent of total chemical imports against 12.8 percent in 1959.

Overall, 20 percent of the imports are

—*Continued on page 31*

**A NEW V.P.: William C. Buffing, jr., treasurer of National Starch & Chemical Corporation, New York, elected a vice-president. He will continue as treasurer.**

## CMRA's Annual Is May 17-18

Chemical Market Research Association will hold its twenty-first annual meeting May 17 and 18 at the Plaza hotel, New York.

## Oil Chemists Group Picks Its 1961 Slate of Officers

American Oil Chemists' Society, after electing A. R. Baldwin as president at its meeting in St. Louis, Mo., last week (see picture on this page), also picked the following slate of officers:

Vice-president, A. E. MacGee, Skelly Oil Company, Kansas City, Mo.; secretary, W. O. Lundberg, Hormel Institute, Austin, Minn., and treasurer, A. F. Kapecki, Wurster & Sanger, Inc., Chicago.

# European Chemicals: What's Up? Petrochems, Chlorine (Germany); PVC and Farm Chemicals (UK)

What's new on the European chemical scene this week? For one thing, a big petrochemical gas project in Germany. A chlorine expansion in that country, for another. In Britain, a glass maker will acquire a polyvinyl chloride producer and a chemical firm is making a bid for a privately-owned producer of farm chemicals and animal feedstuffs. In France, a newly-developed process may mean a steep rise in caustic soda demand from the steel industry. And, in Spain, a new acetic acid plant has started up.

Here are some of the week's new developments:

**The Week's Developments**

• Deutsche Caltex Oil, German subsidiary of Caltex, and Farbwerke Hoechst AG have signed a contract calling for a new refinery-petrochemical complex near Frankfurt.

• Triplex Foundaries of Britain will acquire the capital of Phipps Plastic Products, a producer of polyvinyl chloride and other rigid plastics as well as a fabricator of various plastic shapes. A subsidiary of Phipps has been a distributor of Triplex safety glass for the auto industry.

• In the UK, Associated Chemical Industries is making a $4.2 million bid in stock for Farmer's Company, a privately-owned British maker of agricultural chemicals and animal feeds.

• Sharply stepped-up demand for caustic soda from French steel producers could result from a new process developed by Acieries de Pompey to make the high silica and phosphorus ores of the Lorraine region more economic in modern iron and steel-making furnaces.

• The Spanish company Union Espanola del Acido Acetico has started up an acetic acid plant producing 4,500 metric tons a year for use in cellulose acetate production.

For the Frankfurt petrochemical complex, Caltex will build a $50 million refinery with an annual throughput of 2 million metric tons of crude oil. It is scheduled to start operating in 1963 and its fuel and heating oil production will be sold in Germany.

Hoechst will buy gas feedstocks from the refinery to supply its expanding production of organic chemicals and plastics. The company has been trying to interest

—*Continued on page 39*

**ASSOCIATION HEAD: Dr. A. R. Baldwin, elected president of American Oil Chemists' Society. He is director of research for Cargill, Inc., Minneapolis, Minn.**

## Chemists' Club Elects Work To New Term as President

The Chemists' Club at its annual meeting last week in New York elected Dr. Lincoln T. Work to another term as president. Also elected were:

Resident vice-president, Harry P. Smith; non-resident vice-president, Dr. George A. Harrington; suburban vice-president. Dr. William J. Sparks; junior vice-president, Paul E. McCoy; treasurer, Charles E. Griffith, and secretary, Paul B. Slawter, jr.

Elected trustees for the three-year terms were: Simon Askin, Dr. Fred J. Emmerich, Dr. Lauren B. Hitchcock and George A. Lewis.

## Naphthalene Company Reports Output Plans

Standard Naphthalene Products Company is planning to build a unit that will supply a substantial part of the entire chip, ball and flake naphthalene requirements of the midwest and western areas of the country.

So reports the South Kearny, N. J., concern as plans get under way to put up an installation to make refined naphthalene products at Toledo, Ohio.

According to H. Everett Smith, executive vice-president of both the Standard Naphthalene organization and its parent company, Standard Chlorine Chemical Company, the new naphthalene plant will be

—*Continued on page 30*

## Chemical Buyers Luncheon Will Scout 'New Frontiers'

A tentative program has been set by the Chemical Buyers Group of the National Association of Purchasing Agents at NAPA's convention at the Conrad Hilton hotel in Chicago, June 6.

Speaking on "New Frontiers in Science," will be Dr. E. E. McSweeney, of Batelle Memorial Institute. His speech will be followed by a panel discussion of "New Frontiers in Chemicals."

# *Association Meetings*

ACHEMA 1961, German chemical engineering exposition and congress, Frankfurt am Main, Germany, June 9-17.

American Chemical Society, national meeting, Chicago, September 3-8.

American Coke & Coal Chemicals Institute, eastern regional meeting, Westchester Country Club, Rye, N. Y., May 15-16.

**American Institute of Chemical Engineers, joint meeting with Chemical Engineering Division of Chemical Institute of Canada, Sheraton-Cleveland hotel, Cleveland, Ohio, May 7-10.**

**American Institute of Chemists, annual meeting, Statler hotel, Washington, D. C., May 10-12.**

American Society for Testing Materials, annual meeting, Chalfonte-Haddon Hall, Atlantic City, N. J., June 25-30.

Association of Food & Drug Officials of the United States, annual conference, Mayflower hotel, Washington, D. C., June 18-23.

Chemical Buyers Group of National Association of Purchasing Agents, annual meeting, Conrad Hilton hotel, Chicago, June 6.

Chemical Industries Exposition, Coliseum, New York, November 27-December 1.

Chemical Market Research Association, annual meeting, Plaza hotel, New York, May 17-18.

Chemical Specialties Manufacturers Association, midyear meeting, Drake hotel, Chicago, May 15-17.

Commercial Chemical Development Association, annual outing, Bedford Springs hotel, Bedford Springs, Pa., May 24-25.

Drug,Chemical & Allied Trades Association, annual meeting, Pocono Manor Inn, Pocono Manor, Pa., September 14-17.

Federation of Societies for Paint Technology, annual meeting, Shoreham and Sheraton-Park hotels, Washington, D. C., November 2-4.

Flavoring Extract Manufacturers Association, annual meeting, Savoy-Hilton hotel, New York, May 14-17.

Gordon Research Conferences, petroleum, Colby Junior College, New London, N. H.; chemistry of Coal, New Hampton School, New Hampton, N. H.; lipide metabolism, Kimball Union Academy, Meriden, N. H., June 12-16.

**Institute of Food Technologists, annual meeting, Statler-Hilton hotel, New York, May 9.**

International Congress on Pure & Applied Chemistry, Montreal, Canada, August 6-12.

Manufacturing Chemists' Association, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., June 8-10.

National Agricultural Chemicals Association, annual meeting, Homestead, Hot Springs, Va., October 29-November 1.

National Chemical Exposition, sponsored by the Chicago section of the American Chemical Society, International Amphitheater, Chicago, September 5-8.

National Paint, Varnish & Lacquer Association, annual meeting, Statler-Hilton hotel, Washington, D. C., October 30-November 1.

National Plant Food Institute, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., June 11-14.

Plastics Exposition, sponsored by the Society of the Plastics Industry, Coliseum, New York, June 5-9.

Proprietary Association, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., May 14-17.

Society of the Plastics Industry, national conference, Commodore hotel, New York, June 5-9.

Synthetic Organic Chemical Manufacturers Association, spring outing, Skytop Lodge, Skytop, Pa., May 22-24.

**Toilet Goods Association, annual convention, Waldorf - Astoria hotel, New York, May 9-11.**

Tung Industry Annual Convention, Edgewater Gulf hotel, Edgewater Park, Miss., September 26-28.

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Founded October 18, 1871 by William O. Allison
Directed 1900-1942 by Harry J. Schnell
EDITOR AND PUBLISHER: William S. Auchincloss
ASSISTANT PUBLISHER: J. Stuart Auchincloss
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SCHNELL PUBLISHING COMPANY, INC., 30 Church Street, New York 7, N. Y.
(RE 2-9820) Cable Address: Reporter, New York
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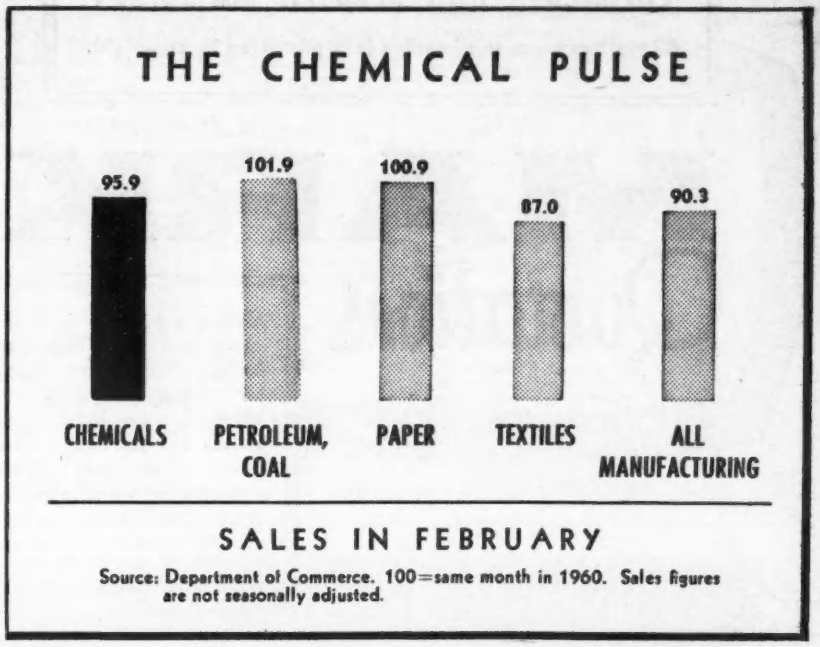
Volume 179 May 8, 1961 No. 19


## What the Latins Want

Open-minded people in the United States are seriously concerned over exactly and fully what lies behind the suspected possibilities for the existence in Cuba of a socialistic government verging very, very closely upon communism.

Some of them are expressing fear that similar reasons may exist among the peoples of other Latin American countries and that the consequence will also be similar. One man with a goodly measure of intimate political experience, who has been spending more than a little time in Latin America, has warned that there is a danger of such developments unless the United States acts quickly and effectively to assist the "millions of little people who work for a pittance," to get better standards of living. The "great defense against a spread of Castroism," he says, "is to give the people of each country confidence that we are going somewhere at last to help them in their living conditions."

Investment of US capital and providing of technical know-how are being progressively proposed and pushed as productive — and profitable — means toward that end. A US mission to Colombia has reported in the April 24 issue of *Foreign Commerce Weekly* on approximately two hundred specific trade and investment opportunities generated through interviews with businessmen in seven major commercial centers in that country.

Those opportunities comprise exports (including heavy chemicals, cleaning preparations, and bluing agents); agencies covering tallow and paraffin. Investment opportunities are especially stressed. They include mining, quarrying, and development of royalties embracing barytes, bauxite, copper, diatomaceous earth, germanium, gold, gypsum, kaolin, limestone, magnesium carbonate, marble, platinum, silver, sulfur, talc, titanium, and uranium.

Other listed investment or affiliation opportunities have to do with castor oil, cosmetics, detergents, pharmaceuticals, soap, and wood resin.

The peoples of the Latin American countries are progressively becoming aware of the dangers of the threat of Castroism. But, not all of their governments are going along with the anti-communism Declaration of San Jose adopted last August by the Conference of American Foreign Ministers. Brazil, which has been leaning more or less toward friendship—at least commercially—with Russia, has asked that the Latin countries take a "neutral" stand with reference to the rift between the governments of the United States and Cuba; although the Brazilian government has accepted a US "statement" of support for its programs and projects in economic development. Seems to be somewhat close to the lines of India's getting substantial financial aid from the United States—and buying air vehicles from Russia.

There is more than a little reason to believe that the people of Brazil do not share their government's "neutrality" and that they would react agreeably to interest by US business in the advertisements on the back page of the semi-monthly *Bulletin* issued by the Brazilian Government Trade Bureau in New York, or its use of the advertising facilities of the bureau's *Boletim Americano*.

People-to-people relations pay. This country may do some good mutually by handing out financal aid to Latin American countries. But, there is a much better promise of mutually beneficial relations by way of the last paragraph of the Pan-American Day message published in New York newspapers by thirty-five Argentine business concerns: "It is our sincere wish on this April 14th, Pan-American Day, that the United States and the Argentine Republic strengthen their fraternal bonds with other Latin American republics, and that this cooperation may mark a new era devoted to the pursuit of a better world, free from need and standing for the defense of Liberty, Justice, and Peace."

## No Prosperity by Law

Theorists of all categories, even those popularly referred to as "economic," may see some reason to expect that the enactment of federal legislation dishing out hatfuls of taxpayers' money as "aid" to distressed areas will relieve the conditions at which it is aimed. But, what is needed in such cases cannot be bought with federally provided funds, no matter who is entrusted with their utilization—something that very seldom gets the consideration which it demands.

Prosperity cannot be created by law; nor can it be given more than a temporary shot in the arm by the injection of any outsider's money. It must be homemade. The only elsewhere-derived assistance by which local industries can be induced to stay in a downgoing community or new industries induced to locate therein is by guaranteeing that the complete cost of such action will be paid by governmental subsidies. The first reaction to that would, of course, be a demand for higher pay by all employee groups, and if that were granted—and subsidized—it would be followed by another similar demand.

The only way in which a distressed area can be given effective industrial remedial treatment requires that it provide the "doctor" with everything that he needs for the performance of such service, and to pay him what he deserves.

That "paying" is not primarily or mainly a matter of money; it is largely a matter of respectful relationships and full neighborly co-operation—both of which must be attained and maintained by properly directed local initiative and endeavor.

# Washington Talks It Over

**The Fountain Committee Has Its Needle Out Again and This Time the Jab Is Likely to Be Felt By the Drug Firms, Chemical Companies and Labs That Get Research Grants From the NIH.**

By Ralph L. Cherry
Washington Editor

The Fountain committee of the house —the drug industry will unhappily recall that this unit instigated the Justice Department's investigation of Salk polio vaccine prices a few years ago—has its needle out again.

The committee has just finished a survey of the research grants programs of the National Institutes of Health and what it uncovered it doesn't like.

As a result, drug firms, chemical companies, commercial laboratories and others who are the recipients of NIH research grants can soon look for some changes in rules that will give the government a closer check on how they are spending the money and what for.

The committee found NIH's administrative organization and practices inadequate to meet the agency's rapidly expanding program responsibilities. In particular, the committee is quite critical of NIH's failure to follow through on its grants to make sure that the money was spent for its assigned purpose.

By far the greater part of the NIH largess goes to colleges and universities—approximately three-fourths of the total, which this year reached $447.5 million. Commercial firms, such as drug and chemical companies got but a small percentage of the total—only $601,404 last year—but they were not overlooked by the committee.

In examining arrangements with these concerns, the committee said that too often the investigator's salary is charged against the grant. A company will frequently permit a scientist to engage in the research program as a means of retaining his employment. A pharmaceutical firm will have an active interest in the research problem, but will be unwilling to budget its own money for the project.

The committee recommended to NIH that, in addition to strengthening its review of projects and the management of grants so that the money is not used to purchase unbudgeted office furniture and equipment, the agency should also initiate the policy that all projects initiated by commercial firms be placed on a cost-sharing basis.

Dr. Luther L. Terry, Surgeon General, promised the committee to give this recommendation serious consideration.

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* THE ENCYCLOPEDIA OF MICROSCOPY. Edited by George L. Clark. 693 pages. Reinhold Publishing Company, New York. $25.

# CHEMICALS AND RELATED MATERIALS

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# Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, May 5 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

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tech., dms., c.l., dlvd. E. 100 lbs. 13.75 - —
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USP, tanks, dlvd. E 100 lbs. 13.00 - —
Acetic anhydride, aluminum ret. dms., c.l., dlvd E lb. 16½- —
aluminum ret dms., l.c.l., dlvd E. lb. .18 - —
tanks, dlvd. E. lb. .14 - —
Acetic anhydride prices 1c. higher in West.
Acetoacetanilide, fib. dms., c.l., dlvd lb. .80 - —
fib dms., l.c.l., dlvd lb .81 - —
Acetoacet-o-chloroanilide, fib dms., c.l., dlvd lb 1.35 - —
fib dms., l.c.l., dlvd lb 1.36 - —
Acetoacet-o-toluidide, fib dms., c.l., dlvd lb .82 - —
fib dms., l.c.l, dlvd lb. .83 - —
Acetone, CP, dms., c.l., dlvd lb 10½- —
dms., l.c.l., dlvd tanks, dlvd. ..... lb. .08 - —
Acetonitrile, dms., c.l., frt. alld lb. .34½- —
dms., l.c.l., frt. alld ..... lb. .36 - —
tanks, frt. alld ..... lb. .32 - —
Acetophenetidin, USP, powd., 200-lb. dms., 1,000 lbs., frt. alld lb. 1.20 - —
100-lb dms. 1,000 lbs. frt. alld. lb. 1.22 - —
Acetophenone, cns. dms lb 42 1.30
Tech., dms., c.l., works ..... lb. .32½- —
dms., l.c.l., works ..... lb. .34 - —
tanks, works ..... lb. .30 - —
N-Acetyl-p-aminophenol, dms., t.l. (min 23,000 lbs.), frt. adjusted lb. 1.30 - —
dms., 1,000-lb. lots, same basis lb. 1.40 - 1.45
dms., 100-lb. lots, same basis lb 1.54 - 1.57
Acetylene black, imp., bgs., c.l., duty and freight extra lb. .20 —
cs., l.c.l., ex whse lb. .25½- .31
Acetylene tetrabromide, 16-dm. lots or more, f.o.b. works lb. .53 —
Acetylsalicylic acid, USP, cryst (20, 40 mesh), powd. (80 mesh), 250-lb. dms., c.l., pt. of shipt lb. 56¼- —
USP 10% starch granulation, 12-50 mesh, white, 450-lb. dms., c.l., same basis lb. 56¼- —
(Pink and green granulations 5c. per lb higher.)
Freight equald. shipt. identical quantity over standard routes, from N.Y., Phila., Midland, Mich., Chicago and St. Louis.
Acetyltributyl citrate, tech., non-ret. dms. c.l., frt alld. E. of Denver lb. .35½- —
non-ret. dms., l.c.l., frt. alld E. of Denver lb. .36½- —
tanks, frt. alld. E. of Denver. lb. .33 —
Acetyltriethyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .39½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb 40½- —
tanks, frt. alld. E. of Denver lb. .37 —

### ACIDS

**Acid quotations are listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.**

Aconite root, bls. lb .50 .55
Acrolein, tech., dms., c.l., works lb .36 —
dms., l.c.l., works lb. 36¾ - —
tanks, works ..... lb. .31 —
Acrylamide, dms., t.l., f.o.b. works. lb. .58 —
dms., t.t.l., same basis lb 60 —
Acrylic acid, glacial, dms c.l., t.l., dlvd lb. 42½- —
dms., l.c.l., t.t.l., dlvd lb. 43½- —
tanks, dlvd. ..... lb. .40 —
tech., esterification, tanks, frt alld lb .38 —
tech., polymerization, tanks, same basis lb. .38 - —
Acrylonitrile, dms., c.l., t.l., frt. equald lb. .26 - —
dms., l.c.l., t.t.l., frt. alld lb .27 - —
tanks, frt. equald lb .23 - —

## Abies Siberica Oil—Ammonium Bicarbonate

Adeps lanae (see lanolin).
Adipic acid, bgs., c.l., dlvd..... lb. .32¼- —
bgs., l.c.l., dlvd. ..... lb. .35 - —
Agar, USP, Kobe No. 1, strip, bls. lb. 3.00 - 3.10
powd., 30 mesh., fib. dms lb. 2.40 - 2.60
di-Alanine, dms., 100-lbs or more, f.o.b works lb 5.25 - —
dms., 1-99 lbs., same basis lb. 10.00 - —
Aldol, 95%, dms., l.c.l., works lb. .28 - —
Aldrin, tech., fib. dms. c.l., t.l. dlvd lb .99 - —
fib. dms., l.c.l., dlvd lb 1.04 - —

### ALCOHOLS

**Alcohol quotations are listed individually. For example, prices on Alcohol, furfuryl, may be found in the F's under Furfuryl alcohol.**

Aletris root, bgs lb 1.50 1.75
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., dlvd. E. of Rockies lb. 2.45 - —
Alkali blue prices 1c. higher W of Rockies
Allethrin, 90%, dms., frt. alld lb. 28.80 - 28.90
Soln., 20% dms., 200-2,000 lb. lots, frt. alld lb. 6.50 6.55
2½% dms. frt. alld. lb. .95 1.10
Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l. dlvd..... lb. .32½- —
dms., t.c.l., dlvd..... lb. .34 - —
tanks, dlvd. ..... lb. .30 - —
Allyl bromide 55-lb cbys 5,005 lbs or more, works lb. 1.50 - —
55-lb. cbys., 1,045 to 4,95. lbs. works lb. 1.55 - —
55-lb. cbys., 55 to 990 lbs works lb. 1.60 - —
Allyl chloride, dms., c.l., dlvd lb. 17½- —
dms., t.c.l., dlvd..... lb. .19 - —
tanks, dlvd ..... lb. .15 - —
Allyl isothiocyanate (see Mustard Oil, syn.).
Almond oil, artif., bitter (see Benzaldehyde)
Almond oil nat. bitter, f.p.a., bots. lb 2.75 3.45
NF, bots. ..... lb 3.00 3.30
sweet, USP, cns., dms..... lb 60 - .70
Aloe, Cape, cs. ..... lb. 35 - .40
powd cs ..... lb 60 .65
Curacao, kgs. ..... lb. 75 - —
powd., kgs. ..... lb .85 - —

## Abbreviations

### Used in OPD Market Quotations

| | | | | | |
|---|---|---|---|---|---|
| alld. | allowed | distr. | distributor | No. | number |
| amorph. | amorphous | djns. | demijohns | nom. | nominal |
| AMP | American melting point | dlvd. | delivered | o- | ortho |
| anhyd. | anhydrous | dms. | drums | ord. | ordinary |
| AOAC | Association of Official Agricultural Chemists | dom. | domestic | oz. | ounce |
| | | E. | east | p- | para |
| a.p.a. | available phosphoric acid | e.p. | end point | Pac. | Pacific |
| approx. | approximately | equald. | equalized | pf. | proof |
| artif. | artificial | exp. | expressed | phos. | phosphate |
| ASTM | American Society for Testing Materials | Ext. | external | photo. | photographic |
| | | F. | fahrenheit | pkgs. | packages |
| Atl. | Atlantic | ferment. | fermentation | powd. | powdered |
| Be. | Baume | f.f.a. | free fatty acid | precip. | precipitated |
| bbls. | barrels | f.f.c. | free from chlorine | prod. | producer |
| bgs. | bags | fib. | fiber | pt. | point |
| bls. | bales | f.o.b. | free on board | pulv. | pulverized |
| bots. | bottles | f.p.a. | free of prussic acid | purif. | purified |
| b.p. | boiling point | frt. | freight | redist. | redistilled |
| b.p.l. | bone phosphate of lime | gal. | gallon | refd. | refined |
| b.r. | boiling range | gran. | granular | refy. | refinery |
| bxs. | boxes | grd. | ground | reg. | regular |
| C. | centigrade | i.&a. | iron and aluminum | resub. | resublimed |
| cbys. | carboys | i.b.p. | initial boiling point | ret. | returnable |
| CD | completely denatured | imp. | imported | SD | specially denatured |
| c.i.f. | cost, insurance, freight | incl. | included | s.d. | single distilled |
| cks. | casks | indust. | industrial | S E. | southeast |
| c.l. | carlots | kgs. | kegs | sec. | secondary |
| cns. | cans | l- | laevo | secs | seconds |
| coml. | commercial | lacq. | lacquer | s.g. | specific gravity |
| conc. | concentrated | lb. | pound | shipt. | shipment |
| CP | chemically pure | l.c.l. | less carlots | soln. | solution |
| cps. | centipoises | l.t.l. | less truckload | s.u. | standard unit |
| cryst. | crystalline | liq. | liquid | syn. | synthetic |
| cs. | cases | mfrs. | manufacturers | tanks. | railroad tankcars |
| ctns. | cartons | m- | meta | tech. | technical |
| cyls. | cylinders | m.a.p. | mixed aniline point | tert- | tertiary |
| d- | dextro | min. | minimum | t.l. | truckloads |
| dbl. | double | m.p. | melting point | t.w. | tankwagons |
| denat. | denatured | N- | nitrogen | USP | U. S Pharmacopoeia |
| dest-dist. | destructively—distilled | n- | normal | vis. | viscosity |
| dl- | dextro-laevo | nat | natural | VM&P | varnish makers & painters |
| dist. | distilled | neut | neutral | W. | west |
| | | NF | National Formulary | whse. | warehouse |
| | | NNR | New and Nonofficial Remedies | w.w. | water-white |

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

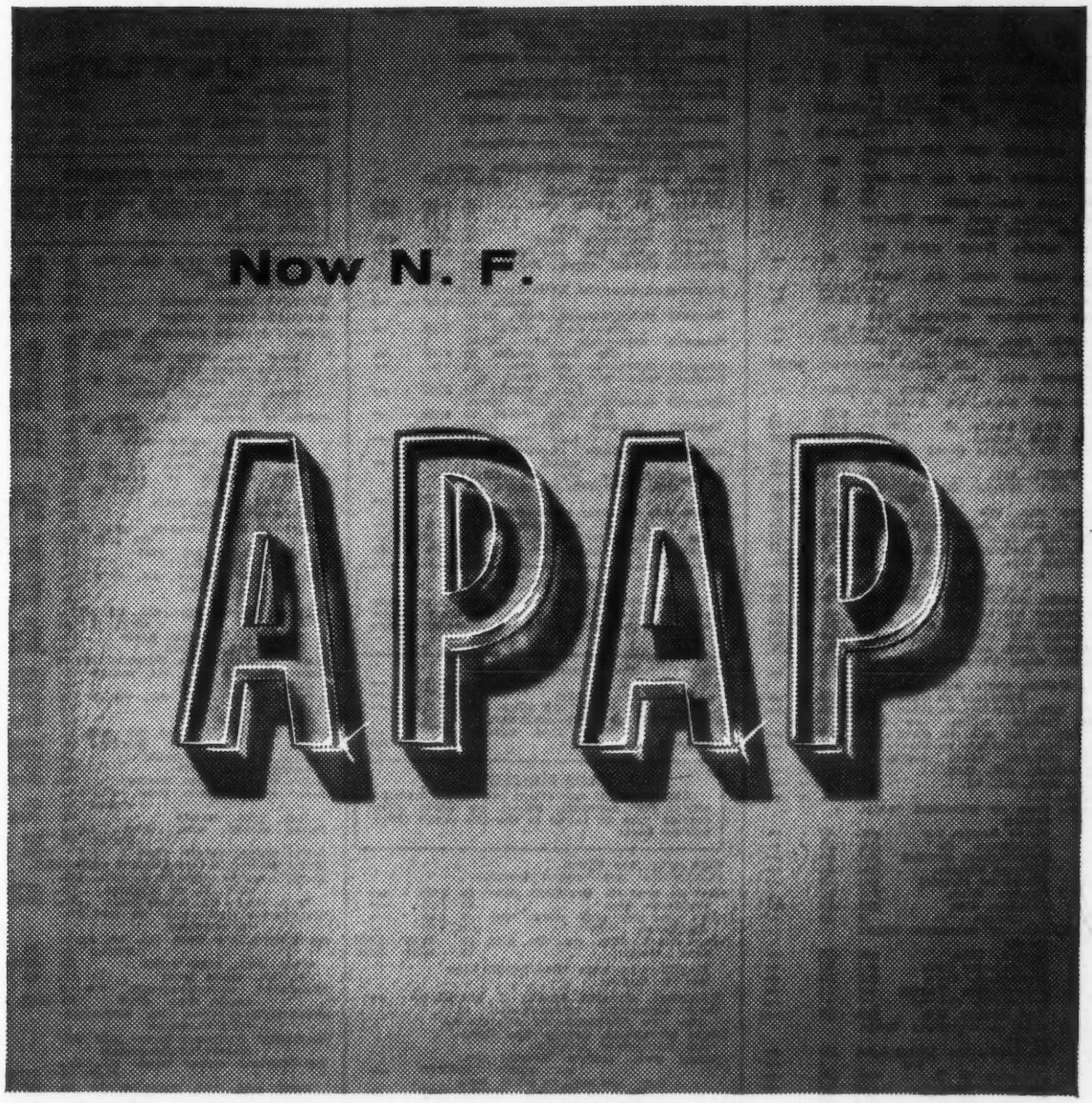
Alcin, USP, bbls., dms., bgs. ... lb. 3.25 - 3.70
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpinol (see a-Terpinol).
Alphatocopherol (see a-Tocopherol).
Alum ammonium, gran., bgs., works 100 lbs. 4.30 - —
Lump, dms., works ..... 100 lbs. 5.05 - —
Powd., dms., works..... 100 lbs. 5.20 - —
USP, burnt., dms ..... lb. .20 - .21
hydrous, dms. ..... lb. .07¼- .08
Alum potassium, gran., bgs., works. 100 lbs. 4.55 - —
Lump, dms., works..... 100 lbs. 5.30 - —
Powd., dms., works..... 100 lbs. 5.45 - —
USP, burnt., dms ..... lb. .20 - .21
USP, hydrous, dms ..... lb. .07¼- .08
Alum, potash-chrome, dms..... lb. .17 - —
Alumina, calcined, bgs., c.l., works. lb. .0535- —
bgs., l.c.l., works..... lb. .056 - .0635
Aluminum acetate, basic soln., 24%, bbls., l.c.l, works lb. .14 - —
Aluminum chloride, coml., anhyd., dms., c.l., works, frt. equald lb. .16 - —
dms., l.c.l., works ..... lb. .16½- —
cryst., dms., c.l., works 100 lbs. 21.00 - —
dms., l.c.l., works ..... 100 lbs. 21.50 - —
Soln., 32° cbys., c.l., works .. lb. .0495-
cbys., l.c.l., works..... lb. .0570- .1095
tanks, works ..... 100 lbs. 3.95 - —
NF, gran., dms., works ... lb. .31 - .32
Aluminum fluoride, tech., anhyd., bgs., c.l., works lb. .16¼- —
bgs., t.c.l., works ..... lb. .17¼- .19¼
bulk, c.l. basis 80% ..... lb. .14½- —
Aluminum fluoride in fib. dms. 0.35c per lb. higher
Aluminum formate, basic soln., containers extra, c.l., works. 100 lbs. 11.00 - —
containers extra, l.c.l., works. 100 lbs. 11.50 - —
Aluminum hydrate, heavy, bgs., c.l., frt. equald lb. .0370- —
bgs., 20,000-40,000 lb. lots, same basis lb. .0395- —
bgs., 2,000-20,000 lb. lots, same basis. lb. .0495- —
bulk, c.l., same basis ..... lb. .0330- —
Light, bgs., c.l., t.l., works ..... lb. .09½- —
bgs., t.l., to c.l., works..... lb. .10½- —
bgs., l.t.l., works ..... lb. .11½- —
Aluminum hydroxide, dried, USP XV, fib. dms., works lb. .82½- —
fib. dms., contract, works lb. .79½- —
Aluminum hydroxide, gel, pharmaceutical, 14-15% $Al_2O_3$, fib dms., works lb. .22 - —
9-9½% $Al_2O_3$, fib dms., works. lb. .19 - —
fib. dms., contract, works lb. .18 - —
Aluminum hydroxide, tech., powd., (see Aluminum hydrate).
Aluminum metal, 99½% + 30-lb ingots, 10,000-lb. lots, frt. alld lb. .2810- —
50-lb pigs, 10,000-lb lots, frt alld. lb. .26 - —
Aluminum oxide, amorphous (see Alumina, calcined).
Aluminum paste lining, extra-fine, dms lb. 71 - —
Standard grade, dms lb. 48½- —
Aluminum powder lining, extra-fine, dms lb 1.13 —
Standard grade, dms lb .83 —
Aluminum paste and powder prices are f.o.b. shipping point. Add 1c per lb. for 100-lb. dm., 1½c per lb. for 50-lb dm., 3c. per lb. for 10 lb can and 5c to 12c. per lb. for smaller containers. Deduct 1c per lb. for single shipment of 400 to 1,499 lbs. 2c for 1,500 to 4,999 lbs., 3c. for 5,000 to 29,999 lbs and 4c. for 30,000 lbs. or more. Where destination is within the continental U. S. a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs or more
Aluminum resinate, precip., 2.1% Al, dms lb. .45 - —
Aluminum stearate, dibasic ctns., c.l lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Monobasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Tribasic ctns., c.l. ..... lb. .39 - —
ctns., l.c.l ..... lb. .40 - .44
Aluminum sulfate, coml., grd., bgs. c.l., works, frt. equald ton. 41.00 - —
bulk, c.l., same basis ton. 40.00 - —
lump, bgs., c.l., same basis ton. 44.00 - —
iron-free, bgs., c.l., works, frt. equald 100 lbs. 3.80 - —
bgs., l.c.l., works, frt. equald. 100 lbs. 4.30 - 8.30
USP, gran., 400-lb. dm., works. lb. .30 - —
USP, powd., dms., works .... lb. .27 - —
Aluminum sulfate prices $1 per ton higher in the South.
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots ..... oz. 6.50 - 10.00
p-Aminoacetanilide, tech., paste, dms., frt. alld lb. 1.57 —
Aminoacetic acid, NF, bbls., frt. adjusted lb. 1.35 1.60
Aminoazotoluene base, bbls., 100% basis lb. 1.15 - 1.18
p-Aminobenzoic acid, tech., dry, dms., works lb. 1.72 —
2-Amino-4-chlorophenol, tech., solid, dms., frt. alld lb. 2.15 3.85
p-Aminodiphenylamine, tech., solid, dms., frt. alld lb. 3.00 —
Aminoethyl ethanolamine, dms., c.l., dlvd lb. .475 - —
dms., t.c.l., dlvd ..... lb. .49 - —
tanks, dlvd. ..... lb. .45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld lb. .44 - —
dms., t.c.l., frt. alld..... lb. .45 - —
tanks, frt. alld. ..... lb. .42 - —
m-Aminophenol, dist., dms., ton lots. lb. 2.05 - —
dms. smaller lots. lbs. 2.50 - —
p-Aminophenol, dms., frt. alld. lb. 1.15 - —
Aminophylline, USP, 100-lb. dm., frt. alld lb. 3.25 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted lb. 3.40 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald E. of Rockies ton. 92.00 - —
refrigeration, tanks, works, frt equald. E. of Rockies ton. 94.50 - —
Aqueous, 29.4%, tanks, works, anhyd. basis, E. of Rockies ton. 95.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal., gray, bgs., c.l. works, frt. equald 100 lbs. 8.25 —
bgs. l.c.l., same basis 100 lbs. 8.65 - 12.65
Ammoniac, sal., white (see Ammonium chloride, tech.)
Ammonium acetate, purif., dms lb. .40 - —
Ammonium benzoate, USP, 100-lb. dms., 1,000-lb. lots, works. lb. 1.90 - —
Ammonium biborate, gran., dms., c.l., works ton. 325 - —
dms., ton lots, ex whse. 100 lbs. 22.86 - —
dms., smaller lots, ex whse 100 lbs. 24.11 - —
Ammonium bicarbonate, dom., dms., c.l., works 100 lbs. 7.50 - —
dms., l.c.l., works..... 100 lbs. 9.50 - —

Ammonium bichromate, dms., works lb. .42 - .48
Ammonium bifluoride, cms., dlvd lb. .3145 - .3345
Ammonium bromide, NF, gran., dms., c.l., t.l., frt. equald lb. .44 - —
dms., l.c.l., same basis lb. .46 - —
Ammonium carbonate, USP, lump, dms., c.l. lb. .15¼ - —
Ammonium chloride, white, tech., fine gran., bgs., c.l., works. 100 lbs 6.00 - —
bgs., l.c.l., works 100 lbs. 6.00 - 6.45
USP gran., 250-lb dm. lb. .17¼ - —
Ammonium citrate, dibasic, 250-lb. dm. f.o.b. works lb .77 - —
Ammonium dichromate (see Ammonium bichromate)
Ammonium fluoride (see Ammonium bifluoride)
Ammonium gluconate, tech., 200-lb. dm., f.o.b. works E lb. .45 - —
Ammonium hydroxide (see Ammonia aqeous).
Ammonium iodide, NF, 25-lb. jar, f.o.b. works lb. 4.51 - —
Ammonium lauryl sulfate, dms., c.l., frt. alld lb. .20½ - —
dms., t.l.l. frt. alld lb .21½ - —
tanks, frt. alld lb. .19½ - —
Ammonium lignin sulfonate, bgs., c.l. works 100 lbs. 3.25 - —
bgs. l.c.l., works 100 lbs. 3.40 - 3.65
Ammonium linoleate, 80%, dms., works lb. .50 - .55
Ammonium molybdate, CP, cryst., 400 lb dms. 15,000-lbs works. lb 1.22 - —
400-lb dms. 2,000-lb contracts, works lb 1.23 - —
400-lb dms. works lb 1.24 - —
Ammonium nitrate, dom., fertilizer grade 33.5% N bgs. f.o.b works ton.67.00 - —
Ammonium nitrate, dom., with dolomite 20.5% N, bgs., c.l., Hopewell, Va ton.48.00 - —
Imp. Canadian, 33.5% N, eastern, bgs. c.l., ship't point, frt. equald to $3 ton base price ton.70.00 - —
Ammonium oxalate, tech., fine gran. 250-lb dm. f.o.b works E lb. .28½ - —
Tech. powd. 200-lb dm., same basis lb. .28½ - —
Ammonium pentaborate, gran., bgs., c.l. works ton 193.00 - —
bgs., ton lots, ex whse 100 lbs.15.27 - —
bgs. smaller lots, ex whse 100 lbs.16.52 - 18.52
Ammonium pentaborate powder $1¢ per ton higher in bags
Ammonium persulfate, tech., dms., 10-ton lots or more, works lb. .18 - —
dms. smaller lots, works lb. .20 - .23
Ammonium phosphate, coml., bgs., c.l., works, frt. equald lb. .09¼ - —
bgs. l.c.l., same basis lb. .10 - —
Dibasic NF, V, bbls., dms lb. .46 - —
Dibasic, tech. bgs., c.l., works, frt. alld lb. .09¼ - —
Ammonium silicofluoride, dms., works lb. .12¼ - .13¾
Ammonium sulfamate, bgs., c.l., t.l., works lb. .19 - —
bgs. l.c.l. works lb. .20½ - .27
Ammonium sulfate, standard granular bulk f.o.b works, base price ton.32.00 - —
Ammonium sulfate, standard, gran., purif., c.l., 100-lb bgs., f.o.b. works lb. .08½ - —
Large granular bulk, c.l. works ton 35.00 - —
bgs. c.l., works ton 40.00 - —
Tech., bulk c.l., t.l., works ton 52.00 - —
bgs., c.l., t.l., works ton.56.00 - —
bgs. l.c.l. t.l.l. works 100 lbs. 3.20 - 5.20
Ammonium sulfide, liq., 40-44%, tanks, frt equald., 100% basis. ton.160.00 - —
Ammonium sulfocyanide, tech. (see Ammonium thiocyanate)
Ammonium thiocyanate, tech., cryst. dms. c.l., works lb. .20 - —
dms. t.c.l. works lb. .22 - .26
Tech., soln., 50%, tanks, frt. equald., basis ammonium thiocyanate content lb. .17¼ - —
Ammonium thioglycolate, coml., 55-gal. dms., ton lots, 100% basis lb 1.15 - —
d-Amphetamine hydrochloride, monobasic, dms lb.17.50 - 23.50
dl-Amphetamine hydrochloride, dibasic dms lb 4.50 - 6.00
d-Amphetamine phosphate, 6b. dms., 100-lb. lots lb.15.00 - —
dl-Amphetamine phosphate, dms.lb 4.20 - 5.60
d-Amphetamine sulfate, 6b. dms. lb.15.00 - 17.00
dl-Amphetamine sulfate, 6b. dms., lb. 4.20 - 5.60
Amyl acetate, ex fusel oil, tech., dist. from 125° to 150°C., dms., c.l., frt alld E of Rockies lb. .18½ - .19
dms., t.c.l., same basis lb. .20 - .20½
tanks, same basis lb. .16 - .16½
Amyl acetate, ex pentane, reg., dms., c.l., dlvd lb. .19 - —
dms., t.c.l., dlvd. lb. .21½ - —
tanks, dlvd. lb. .16½ - —
tech. dms., c.l. dlvd. lb. .17 - —
dms. t.c.l., dlvd. lb. .18½ - —
tanks dlvd lb. .14½ - —
Amyl acetate syn., oxo process, dms., c.l., dlvd lb. .19 - —
dms., c.l. dlvd. lb. .20½ - —
tanks, dlvd lb. .16½ - —
Amyl alcohol, ex fusel oil (see Fusel oil refd).
Amyl alcohol, ferment, refd., 128°-132°C., dms., l.c.l., dlvd lb. .43½ - —
refd., ACS grade, dms., l.c.l., dlvd lb. .45½ - —
ex pentane, mixed amyls, dms., c.l., frt. alld lb. .19 - —
dms., t.c.l. frt. alld lb. .20½ - —
tanks, frt. alld. lb. .16½ - —
Amyl alcohol, primary, dms., c.l., frt. alld lb. .20¼ - —
dms., t.c.l. frt. alld lb. .21¾ - —
tanks, frt. alld lb. .17¾ - —
Sec-synthetic, dms., c.l., works, frt. alld lb. .19 - —
dms., t.c.l., same basis lb. .20½ - —
tanks, same basis lb. .17 - —
Tert-synthetic, dms., c.l., frt. alld. E lb. .17 - —
dms., t.c.l., frt. alld. E. lb. .18½ - —
tanks, frt. alld E. lb. .14½ - —
Amyl alcohol, 1-pentanol (syn. normal), dms., c.l., works lb. .41½ - —
dms., l.c.l., works lb. .43 - —
tanks, works lb. .39½ - —
2-pentanol, dms., c.l., works lb. .65 - —
dms., l.c.l., works lb. .70 - —
tanks, works lb. .60 - —
Amyl n-butyrate, dms. lb. 1.00 - 1.25
Amyl cinnamic aldehyde, dms lb 1.70 - 2.20
p-tert Amyl phenol, dms., c.l., works. lb. .28 - —
dms., l.c.l., works lb. .29 - —
Amyl salicylate, cns., dms. lb. .71 - —
Amyris oil, dms lb 1.50 - —
Anethol, tech., dms. lb. .80 - .92
USP, cns., dms. lb. 1.05 - —
Angelica root, bls lb. .50 - 1.00
Angelica root oil, bots lb.120.00 - 140.00
Angelica seed oil, bots lb.120.00 - 130.00
Aniline, dms., c.l., frt. alld lb. .20 - —
dms., t.c.l. frt. alld. lb. .21 - —
tanks, frt alld lb. .18 - —
Aniline oil (see Aniline).

Aniline salt, dms., c.l., t.l., 20,000 lbs. min., frt. alld lb. .32 - —
dms., l.c.l., same basis lb. .35 - —
Anise oil, USP, dms lb. 1.90 - 2.00
Anise seed, Turkish, bgs. lb. .34 - —
Spanish, bgs. lb. .36 - —
Anisic aldehyde, dms lb. 1.50 - 2.20
o-Anisidine, dms., c.l., frt. alld lb. .80 - —
dms., l.c.l., same basis lb. .82 - —
tanks, same basis lb. .76 - —
p-Anisidine, dms., works lb. .97 - —
Anthracene, 80-85%, dms., c.l., t.l. f.o.b., works lb. .42½ - —
dms., l.c.l., minimum shipment 1,000 lbs., same basis lb. .45 - —
Anthranilic acid, 99%, 150-lb. dms., dlvd lb. 1.15 - —
Anthraquinone, 99.5% bgs., c.l., frt. alld lb. .70 - —
bbls., l.c.l., same basis lb. .73 - —
Electrical grade, bgs. l.c.l., same basis lb 1.10 - —
Antimony butter (see Antimony trichloride).
Antimony metal, bulk, c.l., mines. lb. .32½ - —
cs., c.l., mines lb. .33 - —
Antimony oxide, bgs., c.l., frt. alld. lb. .26½ - .30
bgs., l.c.l., frt. alld. lb. .28 - .31½
Prices of antimony oxide are 2c. higher west of the Rockies.
Antimony sulfide, approx. 65%, bgs., 10,000-lb. lots, dlvd lb. .23 - —
bgs., smaller lots, dlvd lb. .34 - .36
Antimony trichloride, anhyd., solid, pails, c.l., works lb. .41 - —
pails, l.c.l., works lb. .43 - —
Antimony-potassium tartrate, tech., powd., 250-lb., dm., f.o.b. works, E lb. .69½ - —
USP, powd., 250-lb. dm., same basis lb. .74½ - —

Apomorphine hydrochloride, USP, bots., 25-oz. lots oz.35.00 - —
Apricot kernel oil, USP, dms lb. .55 - .70
Arabic gum, amber sorts, 10 bgs. lb. .21 - .23
USP, powd., bbls lb. .27 - .30
Areca nuts, powd., bbls lb. .18 - .20
Arecoline hydrobromide, NF, bots., tins, 100 oz. or more oz. 4.00 - —
l-Arginine, free base, dms., 10-kilo lots or more kilo.90.00 - —
l-Arginine glutamate, dms., 10-kilo lots or more kilo.64.80 - —
l-Arginine monohydrochloride, dms., 10-kilo lots or more kilo.60.00 - —
Arnica flowers (true Montana), bls. lb. .75 - —
Aromatic petroleum solvents (see Solvent Naphtha petroleum, aromatic).
Arsenic, crude (95%), bulk, c.l., works lb. .016 - —
bbls., c.l., works lb. .0.31 - —
Arsenic trioxide, NF, powd., dms., 300-lbs., f.o.b. works lb. .48 - —
Arsenic, white, powd., bbls., c.l., works lb. .04½ - —
bbls., l.c.l., works lb. 06½ - .07½
Arsenous acid, tech. (see Arsenic, white).
Arsenous acid, USP (see Arsenic trioxide).
Arylid maroons, deep shades, bbls. lb 3.70 - —
Light shades, bbls. lb. 2.85 - —
Asafetida gum, cns lb. .36 - .40
Powd., bbls., dms lb. .75 - .80

Asbestine (see Talc, fibrous, New York).
Asbestos, Canadian crude
6D, c.l. (30 tons), mines ton.86.00 - —
7D, c.l. (30 tons), mines ton 75.00 - —
7F, c.l (30 tons), mines ton 71.00 - —
7H, c.l (30 tons) mines ton.61.00 - —
7K, c.l. (30 tons), mines ton 50.00 - —
7M, c.l (30 tons) mines ton.44.00 - —
7R, c.l. (30 tons), mines ton 43.00 - —
7RF c.l (30 tons) mines ton 44.00 - —
7T, c.l. (30 tons), mines ton 41.00 - —
7TF c.l. (30 tons) mines ton 44.00 - —
Asbestos prices are in Canadian funds; l.c.l lots $4 per ton higher
Ascorbic acid, USP dms. 100-kilos kilo. 6.80 - —
dms., less than 100-kilos kilo. 7.05 - 7.80
Ash, black (see Barium sulfide).
Asphalt, gilsonite, black jet, bgs., c.l., mines ton.43.00 - —
ex-whse, 5 tons or more, N. Y., N. J ton.89.50 - —
select, brilliant black, 340°-360°F fusing pt., bgs., c.l., mines. ton.46.00 - —
270°-295°F fusing pt., bgs., c.l., mines ton.43.00 - —
petroleum, cut-back, tanks, tankwagon, refy gal. .09½ - —
emulsion, tanks, tankwagon refy gal. .09½ - —
steam-refd., 50-80 penetration, tanks, tankwagon, refy. ton.21.00 - —
85-300 penetration, tanks, tankwagon, refy ton.20.00 - —


**ACCENT ON PURITY...** For analgesics and antipyretics in general and N-Acetyl-*p*-Aminophenol (APAP) in particular, purity can be a critical point. Because of APAP's rising popularity as a faster acting, primary metabolite (National Formulary XI became effective October 1), it's important for you to know where to get the purest on the market. Miles standards meet and, in some respects, exceed the new N.F. specifications. For example, we report color as a maximum of APHA 15. These high standards reflect more than ten years of pioneering experience and leadership in the commercial development of this drug. Write for an up-to-date bibliography and specification sheet on APAP (also known as Acetaminophen).

Miles Chemical Company
DIVISION OF MILES LABORATORIES, INC.
ELKHART, INDIANA COngress 4-3111

Aspirin (see Acetylsalicylic Acid).
Atropine, NF, tins ..... oz. 6.50 - 7.50
Atropine sulfate USP, bots ... oz. 5.25 5.75
Azelaic acid, bgs., c.l., dlvd. .... lb. .40 - —
bgs. ton lots, same basis ..... lb. .41 - —

## B

Bacitracin, sterile, over 500,000,000 units, 50,000 units. .90 - —
non-sterile, over 500,000,000 units, 50,000 units. .65 - —
Balm of Gilead buds dried bgs lb 1.25 1.35
Barberry root bark, bgs lb 1.00 1.10
Barbital NF 100-lb dms. f.o.b. works lb 4.50 —
Barbital sodium NF 100-lb dms. lb 4.75 - —
Barium carbonate precip., bgs. c.l., works ton 111.50 - —
bgs. smaller lots, works ton 126.50 - —
Barium chlorate dms. works lb 32 .41
Barium chloride anhyd. bgs. c.l., works ton 176.00 - —
bgs. t.c.l., works ton 196.00 - —
NF, cryst., dms., 400-lbs., works lb 23 - —
Tech cryst. bgs. c.l. works 100 lbs 7.00 - —
bgs., t.c.l. works 100 lbs 8.00 - —
Barium chromate bgs. frt equald. lb. .38 - —
Barium dioxide (see Barium peroxide).
Barium hydrate, cryst. bgs. c.l. t.l., frt. equald ton 208.00 —
bgs. t.c.l., t.l. frt equald ton 218.00 —
Barium monohydrate, 99% bgs. c.l. frt equald 100 lbs 11.25 - —
bgs. t.c.l., frt equald 100 lbs 11.75 - —
Barium monoxide (see Barium oxide)
Barium nitrate bbls. c.l. t.l. dlvd lb 16 - —
bbls., t.c.l., t.l.l., dlvd lb 17 - —
Barium oxide grd. dms., c.l. t.l. frt equald ton 275.00 —
dms. t.c.l., t.l.l. frt equald ton 285.00 —
Barium peroxide dms. frt equald lb 20 —
Barium stearate ctns. c.l. frt alld. lb 41 - —
ctns. t.c.l. same basis lb 42 .46
Barium sulfate, tech (see Barytes and blanc fixe).
Barium sulfate, X-ray 100-lb dm. lb .19 - —
Barium sulfide, dms., c.l. works ton 100.00 —
dms., t.c.l., works ton 110.00 —
Barytes, southern off-color bgs. mines ton 30.00 —
95-75% bgs., mines ton 30.00 —
white, water-grd paper bgs c.l. St. Louis ton 60.00 60.25
paper bgs. ex whse New York ton 84.85 —
Battery acid, cbys., c.l., works E. 100 lbs 2.35 —
cbys., t.c.l., works, E 100 lbs. 2.65 10.95
Bauxite bulk mines ton 7.00 10.00
Bay oil NF Puerto Rican 50-55% cns lb. 4.00 - —
55-60%, cns. ..... lb. 4.00 - —
NF West Indian, 50-55%, cns. dms lb. 4.25 4.50
Bayberry wax, bgs lb .65 .70
Beeswax, crude, African, bgs lb. .52 - .54
Brazilian, bgs. ..... lb. .56 - .57
Central American, bgs ..... lb. .56 - .57
Chilean, bgs. ..... lb. .57 Nom.
Refd USP bleached white, bricks 100-lb ctns lb. .67 .69
white, slabs, 100-lb ctns lb .66 .68
yellow bricks 100-lb cans lb 59 61
yellow slabs, 100-lb ctns lb 58 60
Belladonna leaf, bls lb 24 .26
Belladonna root, bls ..... lb. .35 - .38
Bentonite, dom 200 mesh, bgs. c.l. mines ton 14.00 —
Imp. Italian, white, high gel., bgs. 5-ton lots ex whse ton 95.20 - —
bgs., 1-ton lots, ex whse ton 99.00 - —
Imp. Italian, white, low gel. bgs., 5-ton lots, ex whse ton 93.40 - —
bgs., 1-ton lots ex whse ton 97.16 - —
Benzal chloride cbys., works lb. .44 - —
Benzaldehyde, NF, dms ..... lb. .74 - —
Tech., dms., c.l., t.l. ..... lb. .42 - —
dms., t.c.l. ..... lb. .44 - —
Benzene, pure or nitration, tanks, works:
Baton Rouge, La gal. .34 - —
Bethlehem, Pa gal. .34 - —
Birmingham district gal. .34 - —
Chicago district gal. .34 - —
Cleveland district gal. .34 - —
Geneva, Utah gal. .34 - —
Houston, Tex. ..... gal. .34 .40
Johnstown, Pa gal. .34 —
Benzene, pure or nitration, tanks, works:
Lorain, Ohio gal. .34 - —
Middletown, Ohio gal. .34 - —
Mennequa, Colo. gal. .34 - —
Philadelphia district gal. .34 - —
Pittsburgh district gal. .34 - —
Port Arthur, Tex. gal. .34 - —
Benzene, pure or nitration, tanks, works:
St. Louis, Mo. District gal. .34 - —
Syracuse, N. Y. ..... gal. .34 - —
Terre Haute, Ind gal. .34 - —
Youngstown, Ohio gal. .34 - —
Lackawanna, N. Y. gal. .34 - —
Lone Star, Tex gal. .34 - —
Benzene hexachloride 25% and 99% gamma isomer (see Lindane).
Benzene hexachloride, tech., high gamma, bgs., c.l. t.l. consignment, dlvd. gamma-unit .0075 —
bgs., c.l. t.l., direct sale, f.o.b. works gamma-unit. .0065- —
Tech. low gamma, bgs., c.l., t.l., consignment, dlvd gamma-unit .0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit .0056- —
Benzidine hydrochloride, bbls., c.l., frt alld., 100% basis lb 1.19 - —
bbls. t.c.l., same basis lb 1.21 - —
Benzidine sulfate, tech., bbls., frt. alld., 100% basis lb 1.21 - —
Benzidine yellow, AAA, bbls., dlvd. lb 2.20 - —
AAOT, bbls., dlvd. lb 2.55 - —
Lightfast, bbls. dlvd. lb 3.40 - —
Benzocaine, dms. 100-lbs. frt alld lb 3.25 —
Benzoic acid, tech. dms., c.l., t.l., frt. alld lb .25 .37
dms., l.t.l., same basis ..... lb. .29 - .41
tanks, same basis ..... lb. .21 - —
USP, bbls., dms., ton lots lb 48 - —
bbls. dms., 1,000-lb lots lb 50 - —

**BENZOL**
Benzol quotations, both coaltar and petroleum, may be found under Benzene.

Benzoin gum, Sumatra, cs. ..... lb. .32 - —
Benzophenone, dms ..... lb. 1.35 - 1.40
Benzotriazole, tech. dms., 1,000-lb lots, works lb. 1.95 - —
Benzotrichloride, cbys., 1,000-lb lots or more, frt. equald lb. .21 - —
cbys., smaller lots, frt. equald lb. .23 - —
Benzoyl chloride, cbys., dms., c.l., works, frt. equald lb. .22 - —
cbys., t.c.l., same basis lb .23 - —
tanktrucks, dlvd Metropolitan area lb. .21 - —
Benzoyl peroxide, purif., fib. dms., 50 to 1,000-lb lots, works lb. .98 1.08
Benzyl acetate f.f.c., cns., dms lb. .54 - —
Benzyl alcohol, NF, dms. ..... lb. .54 - —
Tech., dms., dlvd lb. .47½- .65
Benzyl benzoate, USP, 40-lb. dms. lb. .62 - —
Benzyl chloride, tech., dms., c.l., f.o.b. frt. equald lb. .23 - —
dms., t.c.l., same basis lb .24 - —
tanktrucks, dlvd., Metropolitan area lb. .21 - —
Benzyl cinnamate, cns ..... lb. 3.80 - 4.00
N-Benzyl-N,N-dimethylamine, 50 dms. frt. alld lb 1.25 - —
12-49 dms. same basis ..... lb 1.35 - —
1-11 dms., same basis ..... lb 1.90 - —
Benzyl formate, cns. ..... lb. 1.70 1.85
Benzyl isoeugenol, cns ..... lb 8.20 8.30
Benzyl propionate, bots ..... lb 1.30 1.35
Benzyl salicylate, bots ..... lb 1.50 1.85
Benzylidine acetone, bots ..... lb. 1.65 1.75
Benzylidine chloride (see Benzal chloride).
Berberine bisulfate cns lb 56.50 - —
Berberine hydrochloride, bots lb 56.50 - —
Bergamot oil, nat. NF Italian, cns. lb 11.00 12.00
Betagammapicoline (see b,g-Picoline).
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid)
Betamethylnaphthalene (see Methylnaphthalene)
Betanaphthol (see b-Naphthol)
Betanaphthylamine (see b-Naphthylamine)
Betaoxynaphthoic acid (see b-Oxynaphthoic acid).
Betaphenylethylamine (see b-Phenylethylamine)
BHC (see Benzene hexachloride (tech.).
Biotin, cryst. bots gram 10.00 —
Biphenyl (see Diphenyl)
Birchtar oil, crude cns ..... lb 1.50 1.90
Rectified cns ..... lb 1.75 2.00
Bismuth chloride, bars ..... lb 5.11 —
Bismuth hydroxide, dms lb 4.60 4.65
Bismuth metal, bxs, ton lots lb 2.25 —
Bismuth nitrate, cryst., 200-lb. dm. lb. 2.25 - —
Bismuth oxychloride, 25-lb. dm., f.o.b. works lb. 4.92 - —
Bismuth subcarbonate, USP, 25-lb. dm., f.o.b., works lb 3.70 - —
Bismuth subgallate NF 200-lb dm. f.o.b works lb 3.98 - —
Bismuth subiodide, fib. dms lb 5.37 —
Bismuth subnitrate NF 200-lb dm. f.o.b., works lb. 3.10 - —
Bismuth subsalicylate USP 100-lb dm., f.o.b works lb 4.15 - —
Bismuth trioxide 100-lb dms. t.o.b works lb 4.40 - —
Bismuth-ammonium citrate, USP, powd., jars lb 4.22 - —
Bisphenol-A bgs., c.l. t.l., single shipt. 20,000-lbs or more, frt. alld lb. .30½- —
bgs. c.l. t.l. less than 40,000 lbs. same basis lb. .31 - —
bgs., t.c.l., same basis ..... lb .32½- —
Blackberry root bark, bls lb 50 .55

**BLACK PIGMENTS**
Black pigment quotations are listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black

Blanc fixe, direct process, bgs. c.l., works ton 160.00 —
bgs., t.c.l., works ton 170.00 - —
bgs., t.c.l., New York whse ton 215.00 —
Blood, dried 16-16½% ammonia, bgs., New York unit-ton 5.50 —
Bloodroot, bls lb .85 .90

**BLUE PIGMENTS**
Blue pigment quotations are listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue

Blue dyes (see Dyes)
Blue vitriol (see Copper sulfate)
Bois de rose oil, Brazilian, dms lb 2.05 - —
Peruvian, dms lb 1.65 - —
BON acid, maroons, pure, bbls lb 1.75 - —
Resinated, bbls lb 1.50 - —
Bone black, dms. c.l., frt. alld lb .1750- .2225
t.c.l. works lb 1950- .2425
Pacific coast bone black prices 3¼c per lb higher.
Bonemeal, steamed, works, E ton 100.00 - —
Bone phosphate, defluorinated, of lime (see Defluorinated phosphate).
Bone phosphate, precip (see Calcium phosphate, tribasic)
Borax, tech., anhyd., 99½%, bgs., c.l. works ton 92.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 7.67 - —
bgs., smaller lots, same basis 100 lbs. 8.91 10.91
bulk, c.l. works ton 83.00 —
Borax, tech., gran., decahydrate, 99½% bgs. c.l., works. ton 50.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 5.31 - —
bgs., smaller lots, same basis 100 lbs. 6.56 8.56
bulk, c.l. works ton 43.50 —
pentahydrate, 99½%, bgs., c.l., works ton 64.50 —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 6.12 - —
bgs., smaller lots, same basis 100 lbs. 7.37 9.37
bulk, c.l. works ton 58.00 —
USP, powd., bgs., c.l., works ton 54.00 —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 6.57 - —
bgs., smaller lots, same basis 100 lbs. 7.82 9.82
Bordeaux powder, tribasic, bgs., c.l., dlvd lb. .24 - —
bgs., t.c.l., same basis lb .26 - —
Boric acid, tech., anhyd., 99.9%, bgs., c.l., works ton 335.00 —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 21.27 - —
bgs., smaller lots, same basis 100 lbs. 22.52 24.52
cryst., 99.9% bgs., c.l., works ton 163.50 —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 11.67 - —
bgs., smaller lots, same basis 100 lbs. 12.93 14.93
Boric acid, tech., cryst., 99.9%, dms., c.l., works ..... ton 188.50 - —
dms., ton lots, ex whse., New York or Chicago, 100 lbs. 13.17 - —
dms., smaller lots, same basis 100 lbs. 14.42 - —
gran., 99.9%, bgs., c.l., works, ton 112.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 8.78 - —
bgs., smaller lots, same basis, 100 lbs. 10.03 -12.03
dms., c.l., works ton 137.00 —
dms., ton lots, ex whse, New York or Chicago 100 lbs. 10.29 - —
dms., smaller lots, same basis 100 lbs. 11.54 - —
bulk, c.l., works ton 106.00 - —
powd., bgs., ton lots, ex whse., New York or Chicago 100 lbs. 9.20 - —
bgs., smaller lots, same basis 100 lbs. 10.45 -12.45
dms., ton lots, ex whse., New York or Chicago 100 lbs. 10.71 - —
dms., smaller lots, same basis 100 lbs. 11.96 - —
USP boric acid $25 per ton higher in bags.
Borneol, cns. lb. 2.75 - —
Boron trichloride CP 1,800-lb. cyls., works lb 1.25 - —
100-lb. cyls. works lb 1.70 - —
Boron trifluoride, gas, cyls., t.l., works lb. .70 - —
cyls., t.l.l. works lb. .70 - —
Brimstone (see Sulfur).
Broenner's acid, bbls lb. 1.53 - —
Bromine, purif., cs. c.l., t.l., dlvd. E of Rockies lb. .32 - —
cs., t.c.l. same basis lb. .34 - .39
Bromine, purif., ret. dms., c.l., t.l., dlvd. E. of Rockies lb. .31 - —
ret. dms. t.c.l., same basis lb. .31 .34
tanks, same basis lb. .21½- —
Bromochloromethane, dms. c.l., frt. equald lb. 48 - —
dms., t.c.l., same basis lb. .50 - —
tanks, same basis lb. 47 - —
Bromoform, pharmaceutical grade, 5-gal. cby. frt. equald lb 1.95 —
Bromstyrol, bots lb 5.25 5.35
Brucine, cns ..... oz. Nominal.
Brucine sulfate, NF, cns ..... oz. 1.45 1.75
Buchu leaves, bbls ..... lb. .60 - .65

**BROWN PIGMENTS**
Brown pigment quotations are listed individually. For example prices on Brown, Iron oxide, may be found in the I's under Iron oxide brown

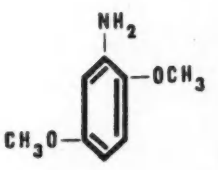
Butadiene, ctd cyls. c.l., refy lb .21 —
cyls., t.c.l., refy ..... lb. .22 —
tanks, dlvd ..... lb. .12¾- —
Butene-1, tanks, works ..... lb .0625- —
Butene-2, tanks works ..... lb. .0570- —
n-Butyl acetate, ferment, dms., c.l., frt. alld lb. .17 —
dms., t.c.l., same basis lb. .18½- —
tanks, same basis lb. .14½- —
Syn. dms. c.l. dlvd E lb. .17 —
dms., t.c.l. same basis lb. .18½- —
tanks, same basis lb. .14½- —
sec-Butyl acetate, syn. dms., c.l., dlvd. E lb. .14¾- —
dms., t.c.l. same basis lb. .16¼- —
tanks, same basis lb. .12¾- —
n-Butyl acrylate, dms. c.l. or t.l., straight or mixed frt. alld. E lb. .37½- —
dms., t.l.l., same basis lb. .38½- —
tanks, same basis lb. .35 - —
n-Butyl alcohol, ferment, dms., c.l., frt. alld lb. .18 —
dms., t.c.l. frt alld lb. .19½- —
tanks, frt. alld lb. .15½- —
Sec-synthetic, dms., c.l., dlvd lb. .15 - —
dms., t.c.l., dlvd. lb. .16½- —
tanks, dlvd lb. .12½- —
Tert-synthetic, dms., c.l., frt. alld., dlvd. E lb. .16 - —
dms., t.c.l., same basis lb. .17½- —
tanks, same basis lb. .13½- —
Butyl aldehyde (see Butyraldehyde).
Butyl chloride, dms., c.l., works lb. .37½- —
dms., t.c.l. works lb. .38¼- —
n-Butyl ether, dms., c.l., works lb. .35¼- —
dms., t.c.l., works lb. .36 - —
tanks, works lb. .33¼- —
Butyl lactate, dms. c.l. frt. alld. E. Rockies lb. .42½- —
dms., t.c.l., same basis lb. .43½- —
tanks, same basis lb. .40 - —
Butyl laurate, dms., works lb. .37½- —
Butyl methacrylate, dms., c.l., t.l., works lb. .55 - —
dms. t.c.l. works lb. .55½- —
Butyl oleate, refd., dms., t.c.l., works lb. .32 —
Butyl phenylacetate, dms lb 4.50 4.60
Butyl phthalate (see Dibutyl phthalate).
Butyl stearate, CP, dms., t.c.l., frt. alld. E. of Rockies lb. .27¼- .28½
tech., dms., c.l., same basis ..... lb. .25¾- —
Butylamine (see Mono- Di- and Tributylamine)
tert-Butylamine, dms. c.l., t.l., f.o.b. works lb. .47 - —
dms., t.c.l., same basis lb. .47½- —
tc., t.t., same basis lb. 45 - —
Butylated hydroxyanisole, food grade, dms. dlvd lb 4.75 - —
6-tert-Butyl m cresol (see Mono-tert-butyl m cresol)
Butylated hydroxytoluene (see 2,6-Di-tert butyl-p cresol)
1,3 Butylene glycol, dms. c.l., t.l., dlvd lb. .20¼- —
dms., t.c.l., t.t.l. f.o.b works lb. .22 - —
tanks, dlvd lb .18 - —
p-tert-Butylphenol, bgs., c.l., frt. alld lb. .25½- —
bgs., t.c.l., same basis ..... lb. .26½- —
tanks, same basis ..... lb. .23½- —
Butyraldehyde, dms., c.l., dlvd lb. .22 —
dms., t.c.l., dlvd. ..... lb. .23½- —
tanks, dlvd lb. .19½- —
Butyric acid, 99%, dms., c.l., frt. equald lb. .34 - —
dms., t.c.l., same basis lb. .34½- —
tanks, same basis lb. .32½- —
Butyric ether (see Ethyl butyrate).
Butyrolactone, dms., c.l., t.l., works. lb. .40 - —
dms. t.c.l. same basis lb 43 —
n-Butyronitrile, dms., c.l., dlvd lb. .56½- —
dms., t.c.l., dlvd. ..... lb. .57½- —
tanks, dlvd. ..... lb. .54 - —

## C

Cacao butter (see Cocoa butter).
Cadmium CP red, dark shade, bbls., frt. alld E of Rockies lb 5.53 - —
Light shade, bbls, same basis lb 4.65 - —
Medium shade, bbls., same basis, lb. 5.30 - —
Cadmium CP red, medium, light shade, bbls., same basis, lb. 4.90 - —
Orange-red shade, bbls., same basis lb 4.30 - —
Yellow, all shades, bbls, frt. alld E. of Rockies lb. 2.95 - —
Cadmium chloride, 400-lb dms., f.o.b. shipping point lb. 1.56½- —
Cadmium iodide, 25-lb. fib. dms lb. 6.75 - 7.00
Cadmium metal, ingots or sticks, ton lots, cs., dlvd lb. 1.00 - —
Cadmium nitrate, purif. cryst., 400-lb. dms., less than 5,000 lbs., f.o.b. shipping point, lb. .94 - —
400-lb. dms., 5,000 lbs. or more, same basis lb. .90 - —
Cadmium-mercury lithopone orange, deep shade, bbls., frt. alld E of Rockies lb. 1.70 - —
Cadmium-mercury lithopone red, dark shade, bbls., same basis lb. 2.00 - —
Red, light shade, bbls., same basis, lb. 1.77 - —
Red, medium shade, bbls., same basis lb. 1.92 - —
Red, medium light shade, bbls. same basis lb. 1.85 - —
Red, maroon shade, bbls same basis lb. 2.08 - —
Cadmium-selenide lithopone maroon, bbls., frt alld E of Rockies lb. 2.81 - —
Orange, bbls., same basis lb. 1.63 - —
Cadmium-selenide lithopone red, orange-red shade bbls. same basis lb. 1.77 - —
Red, dark shade bbls same basis lb. 2.61 - —
Red, light shade, bbls. same basis lb. 1.63 - —
Red, medium shade, bbls. same basis lb. 2.28 - —
Red, medium-light shade bbls. same basis lb. 2.05 - —
Cadmium-selenide, lithopone, yellow, all shades bbls frt alld E. of Rockies lb 1.24 - —
Caffeine NF, curated, dms, 100-lb lots or more lb 2.70 - —
USP, syn., cryst., hydrous, dms., 100-lb. lots or more, frt. alld lb. 2.25 - —
hydrous, powd., 150-lb. dms., frt. alld lb. 2.25 - —
USP, syn., cryst., anhyd., powd., dms., 100-lb. lots or more, frt. alld lb. 2.40 - —
Cajuput oil, native, cns. ..... lb 1.75 2.00
Redist. USP, cns ..... lb 1.90 2.10
Calamine, USP, dms ..... lb 34 —
Calamus oil, bots ..... lb 12.00 20.00
Calciferol, cryst., 10-kilo or more lots, works gram .54 - —
1-10 kilo lots gram .55 - —
Calciferol in edible oil (see Viosterol).
Calcium p-aminosalicylate, trihydrate, fib. dms., 100 lbs. or more, frt. adjusted lb 3.10 - —
Calcium bromide, NF, jars, 100 lbs. or more lb. 1.10 - —
Calcium carbide, standard generator size, 600-lb dms. c.l., dlvd ton 149.00 - —
Calcium carbonate, nat., dry grd., air floated, 325 mesh, bgs., c.l. works ton 10.50 —
Chalk, whiting, 325 mesh, bgs., c.l., works ton 32.00 -34.00
water-grd., ½ to 10 microns, bgs., c.l. works ton 30.00 —
10 to 20 microns, bgs., c.l., works ton 17.00 -18.00
Precip., dense, bgs., c.l., works, ton 30.00 -38.50
bgs., t.c.l., works ton 45.00 -53.50
medium, bgs, c.l., works ton 38.00 —
bgs., t.c.l. works ton 48.00 -53.00
Calcium carbonate, surface treated, bgs., c.l., works ton 42.00 44.00
bgs., t.c.l. works ton 57.00 59.00
ultrafine, bgs., c.l., works ton 117.50 167.50
bgs., t.c.l., works ton 137.50 -187.50
Calcium chloride, conc., flake or pellet, 94-97%, paper bgs., c.l. works, frt. equald ton 39.30 - —
Flake, 77-80%, paper bgs., c.l., works, frt. equald ton 32.00 - —
Liquor, 40% tanks frt equald ton 12.50 - —
Calcium chloride, powd., 77% min., paper bgs., c.l., works, frt. equald ton 37.00 - —
Purif., gran., dms lb 27 —
Calcium chloride, solid, 73-75%, dms., c.l., frt. equald ton 30.50 - —
dms., t.c.l. works frt. equald, ton 36.00 -73.00
USP, gran., dms. lb 32 - —
Calcium chromate, bgs., dlvd lb. 37 - —
Calcium cyclamate, 100-lb dms lb. 1.95 - —
Calcium gluconate, USP, AA grade, 100-lb dm., ton lb. 73½- —
USP, powd, 100-lb dm., ton lb. .66½- —
Calcium hydride, lump, dms. works, lb 2.20 3.00
Calcium hypochlorite, high test, gran., 45-lb. cs., dlvd E. of Rockies cs. 27.50 - —
100-lb. dms., same basis ..... dm. 39.50 - —
Calcium hypophosphite, dms. 1,000-lb lots lb. 1.28 - —
Calcium iodide, 25-lb. jars, works, lb. 4.27 - —
Calcium lactate, NF, dms., f.o.b. works lb. 43 - .46
Calcium mandelate, USP, 150-lb. dm., works lb. 3.25 - —
Calcium naphthenate, liq., 4% Ca., dms., frt equald lb. .30 - —
Calcium pantothenate, USP, jars, 1 kilo or more kilo. 35.00 - —
Calcium para-aminosalicylate (see Calcium p-aminosalicylate).
Calcium phenosulfonate, dms lb. 1.24 - 1.25
Calcium phosphate, dibasic, USP, dihydrate, bgs., c.l., frt. equald 100 lbs. 8.25 - —
Dibasic, feed grade, 18½% P, bgs., c.l., t.l., Bonnie, Fla., frt. equald ton 81.00 - —
bgs. c.l. t.l., f.o.b. Texas City works ton 75.50 - —
bgs., t.c.l., ton 96.00 - —
Feed grade, 21% P., bgs., c.l., t.l., frt. equald ton 97.65 - —
bgs. t.c.l. frt equald ton 107.65 - —
Prices of calcium phosphate dibasic in bulk $3 per ton less than bgs., c.l., prices.
Calcium phosphate, monobasic, bgs., 10,000-lb lots, frt. equald, 100 lbs. 7.45 - —
bgs., smaller lots, same basis, 100 lbs. 7.95 - —
Tribasic, NF, precip., bgs., c.l., works, frt. equald 100 lbs. 9.25 - —
bgs. t.c.l., frt. equald 100 lbs. 10.00 - —
Calcium propionate, any quantity, dms., dlvd E. of Rockies, lb. .37 - —
Prices W. of Rockies 3c. per lb. more.
Calcium phytate, bgs., 50 lbs. or more, f.o.b. warehouse N Y lb. 39 - —
Calcium resinate, precip., dms., frt. alld., works lb .45 - —
Calcium silicate, hydrated, bgs., c.l., works lb 06 - —
bgs. t.c.l., works lb 06½- —
Calcium silicate, paint grade (see Wollastonite)
Calcium stearate, ctns., c.l. ..... lb 39 - —
ctns., t.c.l. ..... lb .40 - .44

| | | | |
|---|---|---|---|
| Calomel, NF mild, powd., dms., 100-lbs., f.o.b. works | lb | 4.32 | — |
| NF, mild, precip., dms., 100-lbs., f.o.b. works | lb | 5.67 | — |
| Camphene, 40° m.p., dms incl., c.l., works | lb | .15 | — |
| dms, incl., t.c.l., same basis | lb | .16½ | — |
| tanks, same basis | lb | .12½ | — |
| Camphene chlorinated, 67-69% (see Toxaphene) | | | |
| Camphor, monobromated, NF, dms., kgs | lb | 3.63 | 3.70 |
| Camphor, syn., tech., 1 bbl. or more | lb | .45 | — |
| USP, gran., powd., bbls., 1,000-lb lots | lb | .53 | — |
| bbls. smaller lots | lb | .54 | — |
| tablets, ctns., 1,000-lb. lots | lb | .80 | — |
| ctns., 500-lb. lots | lb | .81 | — |
| ctns., smaller lots | lb | .82 | — |
| Camphor oil, sassafrassy, dms. | lb | .35 | .55 |
| White, dms. | lb | .26 | 50 |
| Cananga oil native, cns. | lb | 5.00 | 6.50 |
| Rectified, cns. | lb | 7.25 | 10.00 |
| Candelilla wax, crude, bgs. | lb. | .57 | .58 |
| Refd., pure, bgs | lb. | .62 | .63 |
| Powdered Candelilla wax 20 to 100 mesh, 6c higher | | | |
| Cantharides, Chinese, cs. | lb | 1.00 | — |
| powd., bgs. | lb | 1.15 | — |
| Russian, bgs. | lb | 2.00 | 2.15 |
| powd., bgs. | lb | 2.15 | 2.30 |
| Capric acid, dms | lb. | .27½ | .29¾ |
| tanks | lb. | .24¾ | — |
| Caprolactam monomer, bgs., c.l., t.l., f.o.b. works | lb | .52 | — |
| bgs., c.c.l., t.l.l., same basis | lb | .57 | — |
| tanks, same basis | lb | .49 | — |
| Caprylic alcohol, 85% dms., c.l., t.l., works | lb. | .19 | — |
| dms., t.c.l., same basis | lb | .19½ | — |
| tanks, frt. equald. | lb | 16½ | — |
| See 92-99% dms., c.l., f.o.b. works | lb. | .22 | — |
| dms., t.c.l., f.o.b. works | lb | .23 | — |
| tanks, f.o.b. works | lb | .19½ | — |
| Caprylic acid, dms | lb. | .27¼ | .29¾ |
| tanks | lb. | .24¾ | — |
| Capsicum (see Pepper red) | | | |
| Capsicum oil (see Capsicum oleoresin). | | | |
| Capsicum oleoresin NF from dom. pepper, dms | lb | 4.00 | — |
| NF from African pepper, dms | lb | 4.50 | — |
| Caraway oil, NF, dms | lb | 3.75 | — |
| Caraway seed Danish, bgs. | lb | 16 | — |
| Dutch, bgs. | lb. | .19 | — |
| Carbazole 97%, bbls. ton lots, works | lb | 1.05 | — |
| Carbon black, channel, rubber beads, bulk, c.l., works | lb. | .08 | — |
| bgs., c.l., works | lb. | .08½ | — |
| bgs., t.c.l., works | lb. | .16¼ | — |
| furnace, fast extruding, bgs., c.l., works | lb. | .08¾ | — |
| ctns, t.c.l., whse | lb. | .13½ | — |
| high abrasion, bulk, c.l., works. | lb. | .07¼ | — |
| bgs., c.l., works | lb. | .07¾ | — |
| bgs., t.c.l., divd. or whse | lb. | .14½ | — |
| high modulus, bgs., c.l., works | lb. | .08¼ | — |
| ctns., t.c.l., whse | lb. | .13 | — |
| semi-reinforcing, bgs., c.l., works. | lb. | .05¾ | — |
| bgs., ctns., t.c.l., whse | lb. | .12½ | — |
| pigment, high color beads, ctns., c.l., works | lb. | .78 | — |
| ctns., t.c.l., divd. or whse | lb. | .87 | — |
| medium color, uncompressed, bgs., c.l., works | lb. | .14 | — |
| bgs., t.c.l., divd. or whse | lb. | .22½ | — |
| Carbon dioxide, indust., wholesale bulk, 30,000-2,999,999 lbs., divd Metropolitan areas, E | ton. | 60.00 | 115.00 |
| bulk, 3,000,000 lbs or more, divd Metropolitan areas, E | ton. | 55.00 | — |
| Solid, bulk wholesale works | ton | 85.00 | — |
| Carbon disulfide, 55-gal dms., c.l. works, frt. equald to competitive points | lb. | .071 | — |
| 55-gal dms., t.c.l., same basis | lb. | .086 | .091 |
| 5-gal dms., 30 dms to c.l., same basis | lb. | .131 | — |
| 5-gal dms., less than 30 dms., same basis | lb. | .161 | — |
| tanks, f.o.b. works | lb. | .0450 | — |
| Carbon tetrachloride CP, consumers dms c.l. frt alld. | lb. | .12¾ | — |
| dms. t.c.l. frt alld | lb. | .15¼ | — |
| Tech consumers dms, c.l., t.l., frt. alld | lb. | .11¾ | — |
| dms, t.c.l., t.l.l. frt alld | lb. | .14¼ | — |
| tanks frt alld | lb. | .10¾ | .11¼ |
| Carboxymethyl cellulose (see CMC). | | | |
| Carbromal NF dms., 100-lb lots, works | lb | 4.00 | 4.25 |
| dms smaller lots works | lb | 4.10 | 4.75 |
| Cardamom oil, NF, bots | lb. | 40.00 | 43.00 |
| Cardamom seed, bleached "A" | lb | 3.45 | — |
| Bleached "B" | lb. | 3.15 | — |
| Decorticated Alleppey, cs. | lb. | 2.70 | — |
| Guatemala, cs. | lb. | 2.10 | — |
| Green, Alleppey, bgs | lb. | 2.10 | — |
| Ceylon, bgs. | lb. | 2.10 | — |
| Carmine No. 40, NF, bulk, 100-lb lots or more divd. | lb. | 16.80 | — |
| bulk, smaller lots, divd | lb. | 16.90 | 17.30 |
| Carnauba wax chalky, bgs., ton lots | lb. | .65 | Nom. |
| North Country, No. 2, crude, bgs., ton lots | lb. | .73 | Nom. |
| refd., pure, ton lots | lb. | .76 | .77 |
| Carnauba wax, North Country, No. 3, Ceara, crude, ton lots. | lb. | .59 | .61 |
| North Country, No. 3, Parnahyba, crude, ton lots | lb. | .61 | .62 |
| No. 3, refd., pure, bgs., ton lots. | lb. | .66 | .68 |
| No. 1, Ceara, yellow, bgs., ton lots. | lb. | .82 | .83 |
| Parnahyba, yellow, bgs., ton lots. | lb. | .85 | .86 |
| Powdered carnauba wax, 20 to 100 mesh 8c over lb higher | | | |
| Carotene tech, 1,350,000 A units per gram tins, 5-10 kilo lots, divd | gram. | .20½ | — |
| in carrot oil, 5,000,000 to 8,000,000 A units per lb. dms., works | million units. | .12 | — |
| USP microcrystalline in oil, 400,000 A units per gram., dms. divd | million units. | .144 | — |
| b-Carotene in vegetable oil, semi-solid suspension 400,000 A units per gram cns | kilo. | 57.60 | — |
| b-Carotene, liquid in vegetable oil, 500,000 A units per gram, cns | kilo. | 72.00 | — |
| Pure, cryst., 1,600,000 to 1,670,000 A units per gram cns | kilo. | 240.00 | — |
| Carvol, bots | lb. | 5.00 | 5.40 |
| Cascara sagrada bark, bulk | lb. | .32 | — |
| Casein, dom., edible, acid precip., 30 mesh, bgs., 10,000-lb. lots or more, works | lb | .56 | — |
| Casein, dom., edible, acid, precip., 80 mesh, bgs., 10,000-lb. lots or more, works | lb. | .64 | — |
| Imp. inedible acid-precip., grd., Argentine bgs c.i.f. ex dock Eastern seaports | lb. | .15¼ | .16½ |
| Australian bgs c.i.f. same basis | lb. | .19 | .19¼ |
| New Zealand, same basis | lb | .24 | .25 |
| Cashewnut shell, liquid, treated, dms., c.l., Newark, N.J | lb. | .34 | — |
| dms, ton lots, same basis | lb. | .35 | — |
| t.w., same basis | lb. | .23½ | — |
| Cassella acid, dms, frt alld., 100% basis | lb | 1.44 | 1.75 |
| Cassia oil, redist., USP cns | lb | 7.50 | 9.00 |
| Cassia, Padang, "A," bls. | lb. | .31 | — |
| "B," bls. | lb | .30 | — |
| "C," bls. | lb. | .29 | — |
| Korintje "A," bls. | lb. | .31 | — |
| "B," bls. | lb. | .29 | — |
| "C," bls. | lb. | .27 | — |
| Castor oil, dom., blown, dms., c.l. | lb. | .2550 | — |
| dms, t.c.l. | lb | .2650 | — |
| dehydrated, bodied, dms., c.l. | lb. | .2700 | — |
| dms, t.c.l. | lb | .2850 | — |
| tanks | lb. | .2500 | — |
| dehydrated, unbodied, dms., c.l. | lb. | .2500 | — |
| dms, t.c.l. | lb. | .2660 | — |
| tanks | lb. | .2360 | — |
| hydrogenated, bgs., c.l. | lb. | .2475 | — |
| bgs., ton lots | lb. | .2875 | — |
| bgs., t.c.l., divd | lb. | .3075 | — |
| Castor oil, dom., raw, No. 1, dms., c.l | lb. | .2200 | — |
| dms, t.c.l. | lb. | .2300 | — |
| tanks | lb. | .2000 | — |
| No. 3, tech., dms., c.l. | lb. | .2125 | — |
| dms, c.l. | lb. | .2225 | — |
| tanks | lb. | .1925 | — |
| Castor oil, dom., refd., deod., dms., c.l. | lb. | .2650 | — |
| dms., t.c.l. | lb. | .2750 | — |
| tanks | lb | .2450 | — |
| USP dms, c.l. | lb. | .2350 | — |
| dms, t.c.l | lb. | .2450 | — |
| tanks | lb | .2150 | — |
| Imported, No. 1, Braz., tanks | lb. | .17¾ | — |
| No. 3, tanks, same basis | lb. | .17¼ | — |
| Sulfonated, 50% dms, works | lb. | .15 | .15½ |
| 75% dms, works | lb | .19 | .19¼ |
| Castor oil acids, dehydrated, dms. | lb. | .41¼ | .43¼ |
| Split, dms. | lb. | .33¾ | .34¾ |
| Castor pomace, bgs., c.l., works ton | | 35.00 | — |
| Castoreum nat., cns. | lb. | 5.25 | — |
| Syn., cns. | lb. | 9.00 | — |
| Catechol, CP, cryst., fib., dms., works | lb | 3.17½ | — |
| Resub., dms., works | lb. | 4.29½ | — |
| Catnip leaves, Southern, bls | lb. | Nominal. | |
| Caustic potash (see Potash caustic). | | | |
| Caustic soda (see Soda, caustic). | | | |
| Cedarleaf oil, USP XIII cns., dms. | lb. | 4.00 | 5.00 |
| Cedarwood oil cns., dms. | lb. | 1.90 | — |
| Celery seed oil | lb. | 11.50 | — |
| Celery seed, French, bgs. | lb. | .36 | — |
| Indian, bgs. | lb. | .21 | — |
| Cellulose acetate, flake, powd., bgs., t.l., divd E | lb. | .36 | .51 |
| Cellulose acetate-butyrate, powd., 17% butyryl content, bgs., divd E | lb. | .545 | .555 |
| 27% butyryl content, bgs, divd. E | lb. | .595 | .605 |
| 38% butyryl content, bgs., divd. E | lb. | .545 | .555 |
| Cellulose acetate-butyrate, 38% butyryl content, half-second, bgs., divd. E | lb. | .545 | .555 |
| 50% butyryl content, bgs, divd. E | lb. | .585 | .595 |
| Cellulose gum, methyl (see Methyl Cellulose). | | | |
| Cellulose gum, pure, high vis., bgs., 23,000-lb lots or more works, frt alld | lb | .57 | — |
| bgs., smaller lots, same basis | lb | .59 | — |
| standard, low or medium vis., bgs., c.l., t.l., frt. alld. E | lb. | .57 | — |
| standard, low or medium vis., bgs., ton, frt, alld, E | lb. | .59 | — |
| (Cellulose gum prices 1c. per lb. higher in west.) | | | |
| Cerium hydrate 74% CeO fib dms., 100-lb lots or more | lb | 1.40 | — |
| 77% CeO, fib dms, 100-lb lots or more | lb | 1.74 | — |
| Cerium oxalate (see Rare earth oxalate) | | | |
| Cerium oxide, optical grade, bgs., 50-lb lots or more, divd | lb | 1.85 | 1.90 |
| bgs., smaller lots, divd | lb | 2.15 | — |
| Cetyl alcohol NF fib cns., c.l., t.l., divd E | lb | 41½ | — |
| fib, cns., t.c.l., same basis | lb | 43½ | — |
| tanks, same basis | lb | 39 | — |
| Extra, cns., c.l., t.l., divd E | lb | 48½ | — |
| fib, cns, t.c.l., same basis | lb | 50½ | — |
| tanks, same basis | lb | 46 | — |
| Chalk (see Calcium carbonate) | | | |
| Chamomile flowers, Hungarian, | lb. | 1.00 | 1.25 |
| Roman, cs. | lb. | 1.75 | 2.00 |
| Chamomile oil, blue Hungarian | bots | lb. | 350.00 — |

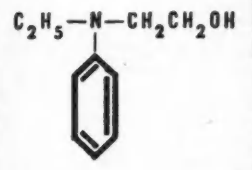

# Eastman aromatic intermediates



1

**2,5-dimethoxyaniline**

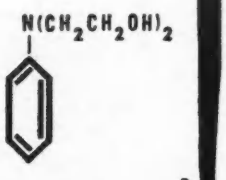
Readily diazotized. Has potential both as diazonium salt and coupling constituent of azo dyes.



2

**phenylethylethanolamine**

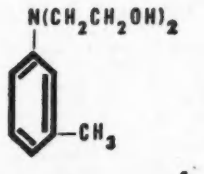
Undergoes typical reactions of tertiary amines and primary alcohols. Under suitable conditions the ring undergoes typical aniline substitutions.



3

**phenyldiethanolamine**

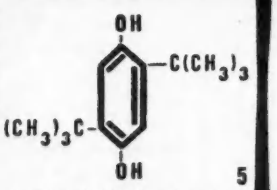
Undergoes the same types of reactions as phenylethylethanolamine.



4

**m-tolyldiethanolamine**

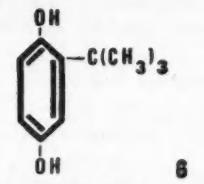
Undergoes the same types of reactions as phenylethylethanolamine.



5

**2,5 di-tert-butylhydroquinone**

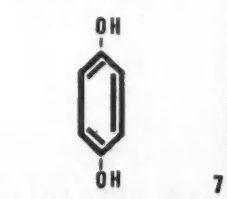
Because of steric hindrance caused by the bulky tert-butyl groups, this is one of the few phenolic antioxidants for rubber which will not be extracted by aquous caustic. Is also a polymerization inhibitor for vinyl monomers and unsaturated polyesters.



6

**mono-tert-butylhydroquinone**

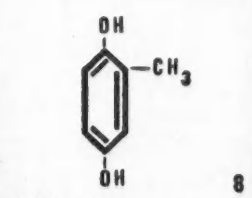
The bulky tert-butyl group sterically hinders reaction of the adjacent hydroxy group, permitting selective reaction of hydroxy meta to tertiary butyl group.



7

**tecquinol® (tech. hydroquinone)**

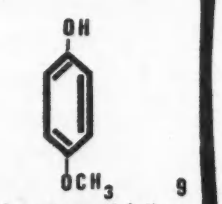
With amines yields antioxidants for rubber and plastics. With phthalic and other anhydrides condenses to form dye intermediates, e.g. quinizarin.



8

**toluhydroquinone**

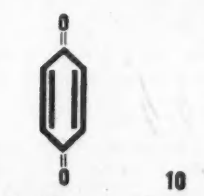
A promising raw material for organic syntheses. Undergoes the same type of reactions as hydroquinone.



9

**hydroquinone monomethyl ether**

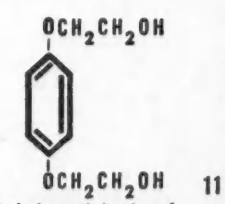
Benzene nucleus, activated by hydroxy and methoxy groups, is readily nitrated, sulfonated, or alkylated.



10

**p-benzoquinone**

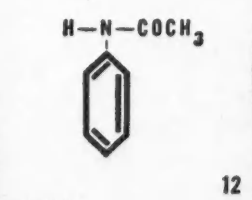
Reacts with one or two moles of dienes. May often be used as an oxidizing agent when inorganic reagents are unsuitable. Reacts with diazonium salts to form phenylquinones.



11

**di-(β-hydroxyethyl) ether of hydroquinone**

Stable ether linkages, reactive ring hydrogens, and two available primary hydroxy groups suggest a useful raw material for organic syntheses requiring dihydric alcohols.



12

**acetanilide**

Used for preparation of sulfa drugs and dye intermediates and as an intermediate for various aniline derivatives.

**SALES OFFICES: Eastman Chemical Products, Inc.,** Kingsport, Tennessee; Atlanta; Boston; Buffalo; Chicago; Cincinnati; Cleveland; Detroit; Greensboro, N.C.; Houston; Kansas City, Mo.; New York City; Philadelphia; St. Louis. **Western Sales Representative: Wilson & Geo. Meyer & Company,** San Francisco; Los Angeles; Salt Lake City; Seattle.

**Eastman** CHEMICAL PRODUCTS, INC.

subsidiary of Eastman Kodak Company, KINGSPORT, TENNESSEE

Gentlemen:

Please send me more information on the products I have checked.

1 2 3 4 5 6 7 8 9 10 11 12

NAME_____

TITLE_____

COMPANY_____

ADDRESS_____ CITY_____ STATE_____

## Charcoal—Degras

Charcoal, activated, NF, fib, dms., c.l., works lb. .34 - —
fib, dms., 5-ton lots, works lb. .35 - .35½
fib dms, smaller lots, works lb. .36 - .59
Charcoal, black (see Charcoal, activated).
Charcoal, bone (see Bone black).
Charcoal, hardwood, lump, bulk, c.l., f.o.b plant ton 55.00 - —
briquets, bulk, c.l., f.o.b plant ton 80.00 - —
5-lb paper bgs., c.l., same basis ton 106.00 - —
20-lb paper bgs, c.l., f.o.b plant, ton 90.00 - —
40-lb paper bgs c.l. same basis ton 86.00 - —
Chenopodium oil, NF, cns lb. 4.75 5.00
Chicago acid paste, bbls., frt. alld. lb. 3.21 - —
Chinawood oil (see Tung oil).
Chloral, tech., 94% min, dms., c.l., works lb. .23 - —
dms., l.c.l., works lb. .24 - —
tanks, multiple units, 5 cars, dms., l.c.l., works lb. .21 - —
Chloral hydrate, USP, jars, 1,000-lb lots lb 1.00 - —
jars, 500-lb lots lb 1.03 - —
jars, 100-lb. lots or less lb 1.05 - —
Chlordan, agricultural, dms., c.l., frt alld lb. .65 - —
dms, l.c.l. 5,000-10,000-lb. lots, frt alld lb. .66 - —
clarified, dms., c.l., frt. alld lb. .69 - —
dms, l.c.l. 5,000-10,000-lb. lots, frt alld lb .70 - —
Chlorinated paraffin, 40%., dms., c.l., frt. alld lb. .15 - —
dms, l.c.l., 10 dms or more, same basis lb. .16 - —
70%, dms., c.l., same basis lb. .18½- —
dms, l.c.l. 10 dms or more, same basis lb. .19½- —
Chlorinated rubber, 5, 10, 20 cps., ctns., c.l. works lb .60 - —
ctns., l.c.l., works lb .61 - —
125 cps. ctns. c.l., works lb .70 - —
300 cps. ctns. c.l., works lb. .80 - —
Chlorine, liq., cyls., c.l., works, frt equald lb. .11 - —
cyls., l.c.l., Metropolitan area, same basis lb. .12½- .13¾
tanks, single units, works, frt equald 100 lbs. 3.25 - —
tanks, multiple units, 5 cars, works, frt, equald, same basis 100 lbs. 4.15 - —
tanks, multiple units, 4 cars, same basis 100 lbs. 4.35 - —
tanks, multiple units, 2 cars, same basis 100 lbs. 5.35 - 5.85
tanks, multiple units, 1 car, same basis 100 lbs. 6.25 - 7.25
Chloroacetic acid, mono, flake, 99%, purif. dms., c.l. lb. .23½- .25½
dms, l.c.l. lb. 24½- —
tech., flake 96-97%, dms., c.l., frt, equald lb. .19 - —
dms, l.c.l. frt equald lb. .20 - —
3-Chloro-4-aminotoluene, tech., liq., dms., frt alld lb 1.03 - —
4-Chloro-2-aminotoluene, fused, bbls. lb 1.38 - —
6-Chloro-2-aminotoluene, tech., liq., dms, frt. alld lb. .66 - —
m-Chloroaniline, dms., c.l., frt alld. lb. .75 - —
dms., l.c.l., same basis lb .77 - —
tanks, same basis lb .73 - —
o-Chloroaniline, dms., c.l., frt. alld lb. .52 - —
dms., l.c.l., same basis lb .54 - —
tanks, same basis lb .50 - —
p-Chloroaniline, dms., c.l., frt. alld. lb. .77 - —
dms, l.c.l. same basis lb .79 - —
o-Chlorobenzaldehyde, dms., t.l., works lb 1.05 - —
dms, t.l., same basis lb 1.20 - —
p-Chlorobenzaldehyde, dms., l.c.l., works lb 1.95 - —
o-Chlorobenzoic acid, fib, dms., t.l., works lb 1.10 - —
fib, dms., smaller lots, works lb 1.25 - —
p-Chlorobenzoic acid, fib dms., 2,000-lbs. or more, works. lb. 2.25 - —
fib, dms., less than 2,000-lbs., same basis lb 2.30 - —
Chloroform, tech., dms, c.l. dlvd, E lb. .18 - —
dms., l.c.l., same basis lb .19 - —
tanks, same basis lb .17 - —
USP, dms., c.l., dlvd lb. .27 - —
dms., l.c.l., dlvd lb. .30 - —
tanks, minimum 4,000 gals, dlvd, lb. .25 - —
2-Chloro-4-nitroaniline, paste, dlvd, E., 100% basis lb. .90 - —
Powd., dlvd, E., 100% basis lb 1.00 - —
4-Chloro-2-nitroaniline, powd, dlvd, E lb. .86 - —
4-Chloro-2-nitrophenol, tech., paste, dms, frt alld lb. .75 - —
4-Chloro-2-nitrotoluene, tech., solid, dms., frt alld lb. .99 - —
6-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld lb. .25 - —
p-Chlorophenol, dms., c.l., frt. equald lb .37 - —
dms, l.c.l., same basis lb .38 - —
p-Chlorophenol, dms., c.l., frt equald lb .37 - —
dms, l.c.l., same basis lb. .38 - —
Chloropicrin, comL., cyls., 180 lbs., frt alld lb 1.07 - —
cyls., 100 lbs., same basis lb 1.08 - —
cyls., 50 lbs., same basis lb 1.14 - —
Chlorosulfonic acid, dms., c.l., frt equald lb .0465- —
dms., l.c.l. frt equald lb .0515- —
tanks, frt equald lb .0415- —
Chlorosulfonic acid, in stainless steel dms ½c per lb higher
o-Chlorotoluene, tech, dms., t.l., works lb. .37 - —
dms, l.c.l., t.l., same basis lb .38 - —
Choline bitartrate, 100-lb dms., frt equald lb. 1.25 - —
Choline chloride, 100-lb dms., frt. equald lb 1.25 - —
Choline dihydrogen citrate, 100-lb. dms, frt equald lb. 1.25 - —
Chrome green CP, dark, light medium blue content, 1-15%, bbls dlvd E of Rockies, lb. .43 - —
blue content 16-30%, bbls., same basis lb. .44 - —
Chrome green, medium blue content, 41-45%, bbls., same basis lb. .44 - —
blue content 45-49%, bbls., same basis lb. .45 - —
reduced color 25%, bbls., same basis lb. .20 - —
Chrome green prices 1c higher W of Rockies
Chrome orange CP bbls., dlvd E of Rockies lb .35 - —
Chrome orange prices 1c higher W of Rockies.

Chrome yellow, CP bbls., dlvd E. of Rockies lb. .35 - —
Chrome yellow price 1c. higher W of Rockies.
Chromic acid, 99¾%, dms., c.l., works, frt. equald lb. .29½- —
dms., l.c.l., dlvd, N. Y. Metropolitan area lb. .30 .31
Chromic acid, NF (see Chromium trioxide).
Chromium acetate, soln., 7½%, dms., 500-2,000-lb lots, works. lb. .10 - —
Chromium fluoride bbls., works lb. .51 - .52
Chromium oxide, hydrated, bbls., fib dms, c.l. frt alld. lb. 1.20 —
Pure, bgs., c.l., frt alld lb. .44½- —
bgs., l.c.l., same basis lb. .45½- —
Chromium trioxide, NF, bots lb 1.15 —
Cinchona bark, NF, red, broken, bgs lb .25 - —
NF, yellow broken, bgs lb. .35 .40
Cinnamic acid, refd., bots lb 2.50 3.50
Cinnamic alcohol, bots lb. 1.50 1.60
Cinnamic aldehyde, dms lb. .80 1.00
Cinnamon, Ceylon, No. 2, bgs lb. .53 - —
Ceylon, No. "0000," bgs. lb. .73 - —
Cinnamon bark oil, bots lb. 55.00 -74.00
Cinnamon leaf oil, crude, dms lb 1.60 2.00
USP (Cassia), cns., dms lb 8.50 13.50
Citral, CP, bots lb 4.50 - 5.00
Extra, bots lb 3.60 5.00
Syn., dms. lb 7.25 7.40
Citric acid, USP, anhyd., fine gran., bgs., dms., c.l lb. .29½ .30
bgs., dms., 10,000-lb. lots, 1 shipt lb. .30 .30½
bgs., dms., smaller lots lb. .30½- .31
USP, hydrous, fine gran., bgs., dms., c.l lb. .27½- .28½
bgs., dms., 10,000-lb lots, 1 shipt lb. .28 .28½
bgs., dms, smaller lots lb. 29 29½
Powdered citric acid ½c per lb. higher
Citronella oil, Ceylon, dms lb 1.00 —
Java-type, dms. lb. 1.00 - 1.20
Citronellal, bots, dms. lb 1.40 1.60
Citronellol, bots, dms. lb 1.90 2.50
Synthetic, dms. lb. 1.70 - —
Civet, artif., bots lb. 13.75 15.00
Nat, bots. oz 8.50 15.00
Clay, ball, dom., airfloated, bgs., c.l., Tenn ton. 17.50 21.50
crushed shed moisture, bulk, c.l., Tenn ton 8.00 11.25
Imp., airfloated bgs., c.l., Atl port net-ton 43.00 47.00
lump, bulk, Atl port net-ton 31.50 37.50
Clay, China, dom., dry-grd, air floated, 99%, 325 mesh, Georgia bgs., c.l., works. ton 11.00 17.00
Georgia bgs. l.c.l. works ton 13.50 22.50
Imp., white, lump, bulk, c.l., ex-dock, Philadelphia, Portland, Me long-ton 23.00 35.00
white, powd, bgs. c.l. ex dock net-ton 50.00 —
bgs., l.c.l. ex whse net-ton 60.00 70.00
Cleaners naphtha, petroleum 105° F Flash, tankcars New Jersey and New York gal. 18 —
Group 3 gal. 12675- —
Houston, Texas gal. 145 —
140° F Flash, tankcars, New Jersey or New York gal. 205 —
Group 3 gal. 154 - —
Houston Texas gal. 17 —
Cleve's acid, tech., mixed, solid, dms, frt alld lb 1.05 - —
1,6, tech, solid dms frt alld lb 77 - —
1,7 tech, dms frt alld lb 2.20 - —
Clove bud oil, USP, dms. lb. 2.65 - —
Cloves, Madagascar, bgs lb. .35 - —
Zanzibar, bgs. lb. .37 - —
Clove leaf oil, crude, dms lb. 1.10 - —
CMC, crude, 96.4% low or medium vis, bgs., 23,000 lbs., dlvd, E., 100% basis lb. .40 - —
96.4% low, or medium vis., bgs., less than 23,000 lbs., dlvd, E., 100% basis lb. .42 - .46
65%, low or medium vis, bgs., c.l., dlvd, E., 100% basis lb. 40 - —
l.c.l., dlvd E., 100% basis lb. .42 1.00
purif., high vis (see Cellulose gum)
CMC prices W. of the Rockies are 1c. per lb. higher and are on a dlvd. basis.
Coaltar, crude, resale for soln., tanks, works gal. .17 - —
Refd., resale, tndust., dms. c.l., ex whse gal. .35 - —
dms., l.c.l., ex whse gal. .39 - —
tanks works gal 20½- —
Coaltar pitch, aluminum, bulk, Works ton 42.00 - —
Carbon, bulk works ton 42.00 - —
Indust., bulk, works ton 44.00 - —
Core, bulk works ton 40.50 - —
Fiber, bulk works ton 48.00 - —
Roofing, 140-155° F., Federal Specification RP 381, Type I tanks, works ton 41.00 - —
Cobalt acetate, 25% Co, dms, dlvd lb 1.04 —
Cobalt blue, genuine, 250 lb bbls, dlvd E of Rockies lb 4.90 - —
Cobalt blue prices 1c higher W of Rockies
Cobalt blue (imitation (see Ultramarine blue)
Cobalt carbonate, 48% Co, powd., bgs., dlvd lb 1.45 - —
Cobalt chloride, 24.2% Co., dms., dlvd lb. .93 - —
Cobalt hydrate, 60-61% Co., dms., dlvd lb. 1.97 - —
Cobalt linoleate, fused 8½% Co., dms lb. 71½- —
Liq., 6% Co. dms lb. 57½- —
Cobalt metal, 99% dms, f.o.b carrier lb 1.50 - —
Cobalt naphthenate liq. 6% Co., dms, dlvd lb .48¾- —
Cobalt nitrate 20.1% Co. bbls. dlvd. lb. .75 - —
Cobalt oxide, black, ceramic grade, 72½ 73½% Co., kgs., dlvd E of Mississippi R. lb 1.15 - —
70-71% Co kgs. same basis lb 1.12 —
Cobalt oxide prices W of Mississippi R 3c. per pound higher
Cobalt phosphate powd., 32.1% Co., dms, dlvd lb 1.35 —
Cobalt resinate, fused 3% Co. dms lb. .38½- —
Cobalt sulfate, cryst., 21% Co., dms., dlvd lb .64 —
Monohydrated, 33% Co dms., dlvd lb 1.09 - —
Cobalt tallate 6% Co., dms, dlvd lb .44 - —
Cocaine, USP, ens., 100 oz lots, f.o.b works oz 12.50 - —
Cocaine hydrochloride, ens 100-oz lots f.o.b works oz 13.75 —
Cocillana bark, bls lb 18 20
Cocoa butter, bgs. lb. .56½- .61½

Coconut oil, crude, tanks, New York lb. .13 - —
tanks, Pac. coast lb. .11¾- —
Refd., deodorized, dms. lb. .19 - .20
Coconut oil acids, dist., dms lb. .21½- .24
tanks lb. .19 - —
double dist. (stripped), dms. lb. .22½- .25
tanks lb. .20 - —
Cod oil, dms., spot lb. .08¼- .08½
Codeine, NF cns., 100-oz. lots oz. 13.25 - —
Codeine hydrochloride cns., 100-oz. lots oz. 11.75 - —
Codeine phosphate, USP, cns., 100-oz. lots oz. 10.25 - —
Codeine sulfate USP cns. 100-oz. lots oz. 10.75 - —
Codliver oil, USP, dms gal 1.40 1.70
Cohosh root, black, bls lb 20 25
Blue, bls lb 20 25
Colchicine, USP, bots. 27.50 -29.00
Colchicum root, bls lb .35 45
Colchicum seed, bgs. lb. .85 .90
Collodion, USP, dms. lb. .32½- —
USP flexible, dms lb .34 —
Colocynth pulp, bls lb 75 —
Colombo root, bls lb 16 .18
Condurango bark, bls lb 18 20
Congo copal gum, No 1, bgs lb 26 - .27
No 2, bgs lb 23 .25
No 3, bgs lb 21 .24
Copaiba balsam, cns., dms. lb. .80 - .90
Copaiba oil, cns lb 1.35 2.00
Copper acetate, bbls, c.l., works lb 53 - —
bbls., l.c.l., works lb .54 - —
Copper carbonate, 55%, dark dense, works lb. 34.35 - —
bgs., l.c.l., works lb. 35.85 - —
Copper chloride, cupric, anhyd., dms., works lb. .43½- .44
cryst., dihydrate, dms., works lb. .29¾ .30¼
cryst., dried, dms., works lb .37¾ .38½
cuprous, dms., works lb. .3855- .4155
Copper cyanide, tech, dms., 20,000-lb lots or more lb. .609 —
dms, 1,000-lb lots or more lb 619 —
dms, smaller lots lb 639 .65
Copper gluconate, dms lb 3.20 —
Copper hydrate, dry, dms, c.l., frt, E of Miss lb. .52½- —
dms., l.c.l., same basis lb. .53 - —
Copper metal, electrolytic, dlvd, Valley, basis lb. .30 - —
Copper naphthenate, liq., 8% Cu, dms, frt alld lb. .26½- —
Copper nitrate, tech, cryst., dms., works lb. .30¾ .32¾
Copper oleate, solid, 9% Cu, dms., works lb. .45 —
Copper oxide, black, bbls, 100-5,000-lb. lots, works lb. .47 - —
red, 97%, USP Type 1, bbls., 100-5,000 lbs. lots lb. .47½- —
90%, USP Type II, bbls, 100-5,000-lb lots or more, works lb. .45½- —
Copper quinolinolate, 18% Cu, dms., ton lots lb 4.25 - —
10% active quinolinolate, dms lb 1.14 1.15
Copper resinate, precip, dms, frt. alld lb. .47 - —
Copper sulfate, CP, gran., dms., works lb. .1885- —
Cryst., 99%, bgs., c.l., works, 100 lbs. 12.00 - —
bgs., l.c.l., works 100 lbs. 12.50 -15.00
Copper sulfate, monohydrated, 35%, dms., c.l., works 100 lbs. 22.65 - —
dms., l.c.l., works 100 lbs. 23.40 - —
Tribasic, distributors, bgs., c.l., works 100 lbs. 29.10 - —
bgs., l.c.l., works 100 lbs. 30.60 - —
Copper undecylenate, dms lb 2.75 - —
Copra, Atl., Gulf ports, c.i.f. ton. 165.00 - —
Pac. ports, c.i.f. ton. 160.00 - —
Coriander oil, USP, bots. lb. 6.50 7.25
Coriander seed, Moroccan, bgs lb. .18 —
Rumanian, bgs. lb. .14 - —
Yugoslavian, bgs lb 08½ - —
Corn oil, crude, tanks, works lb. .17¾- —
Foots, (soapstock acid 95%) tanks, New York lb. .07½ Nom.
Refd., salad, dms. lb. .2350- .2375
tanks lb. .2148- —
Corn oil acids, dist., dms lb. .15½- .18
tanks lb. .13 - —
Corn sugar, tanners, chipped, paper bgs. c.l. 60,000 lbs min. 100 lbs. 7.30 - —
paper bgs. l.c.l 100 lbs 7.45 - —
Corn syrup, 43° Be., tanks, dlvd, N Y 100 lbs. 6.30 - —
non-ret. dms., c.l., same basis, 100 lbs 7.23 —
Corrosive sublimate (see Mercuric chloride).
Cortisone acetate, USP, bots., kilo or more gram .95 1.75
Costus oil, bots oz 6.00 —
Cottonseed meal, 41% bgs, Memphis ton. 63.00 Nom.
Cottonseed oil, crude, tanks, South, East lb. .14½ Nom.
tanks, Valley lb. .14¼- .14⅝
tanks, Texas, Waco lb. .14⅜ Nom.
Foots (soapstock, acid 95%), New York, tanks lb. .04½ Nom.
Refd., salad, dms. lb. .20 - .20¼
tanks lb. .18 - .18⅛
Cottonseed oil acids, dist., dms lb. .15½- .18
tanks lb. .13 —
Coumarin, NF, cryst., dms. lb. 3.20 - 3.30
Cramp bark, NF, bls. lb. .90 1.00
Cream of tartar (see Potassium bitartrate).
Creosote carbonate, NF, bots, chys., lb 3.05 3.26
Creosote, coaltar, crude, tanks, works, frt adjusted gal .24 - —
Crude, soln 80%, tanks, works, gal. 226 - —
Refd., dms., c.l., works gal. 50 - —
dms., l.c.l., same basis gal 62 - —
tanks, same basis gal 38 —
West Coast creosote prices computed on a basis of 24c per gallon for straight oil and 20c per gallon for coaltar
Creosote, beechwood, chys, dms., f.o.b. works, dlvd in Metropolitan area lb. 1.72 1.77
Hardwood, NF chys, dms, same basis lb. 1.42 1.47
Pinewood, dms, incl. c.l., works, lb. .0611- —
dms, incl., l.c.l., works lb. .0684- —
dms, incl., l.c.l. ex whse, New York lb. .0795- —
tanks, works lb. .0511- —
Creosote oil (see Creosote coaltar).
Cresol, tech, 50% below 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., frt. alld lb. .16½- —
non-ret dms., l.c.l., same basis lb. .17½- —
tanks, same basis lb. .145 - —
USP, 50% 204°C., dry above 207°C., wide distillation range, non-ret dms., c.l., same basis lb. .18 - —
non-ret dms, l.c.l. same basis, lb. .19 - —
tanks, same basis lb. .16 - —
m-Cresol, 95-98% dms, c.l., works, lb. .60 - —
dms, l.c.l., works lb. .61 - —
m-p-Cresol, 5-95% 3°C., dms., c.l., frt. equald lb. 18 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .16 - —
m-p-Cresol, 2.97% 2°C, dms., c.l., frt. equald lb. .22 - —
dms., l.c.l. same basis lb 23 - —
tanks, same basis lb. .20 - —

o-Cresol, 30.5°C, m.p and over, ret., dms., c.l., frt equald lb. .17 - —
ret. dms., l.c.l., same basis lb. .18 - —
tanks, same basis lb. .15 - —
30°-30.49°C, m.p., dms., c.l., frt. equald lb. .16½- —
ret. dms., l.c.l., same basis lb. .17½- —
tanks, same basis lb. .14½- —
29°-29.9°C, m.p., dms., c.l., frt. equald lb. .16 - —
ret. dms., l.c.l., same basis lb. .17 - —
tanks, same basis lb. .14 - —
25°-28°C m.p. dms. c.l., frt. equald lb. .15 - —
ret. dms., l.c.l., same basis lb. .16 - —
tanks same basis lb. .13 - —
p-Cresol, 98%, dms., c.l., dlvd lb. .52 - —
dms., l.c.l., dlvd lb. .53 - —
tanks, dlvd lb. .49 - —
2,3-Cresotic acid, dms., ton lots, works lb. 70 - —
dms., smaller lots, works lb. .72 - —
p-Cresyl methyl ether, cns lb. 1.80 2.05
Cresylic acid, coaltar, dom., meta-para content above 25%, resins and tricresyl phosphate grades, dms., c.l., t.l., frt equald gal. 1.35 - —
dms., l.c.l., same basis gal. 1.40 - —
tanks, same basis gal. 1.15 - —
metapara content 25% or less, dms, c.l. t.l. same basis gal. 1.20 - —
Cresylic acid, coaltar, dom., meta-para content 25% or less, dms, l.c.l. same basis gal 1.25 - —
tanks frt equald gal 1.00 - —
Imp., metapara content 25% or less, f.o.b works, frt, equald, to competitive points, 50 dms or more, gal. 1.03½- —
less than 50 dms., same basis gal. 1.05 1.15
tanks, same basis gal. 1.00 —
Crotonaldehyde, 91-93% dms., l.c.l, works lb. .25 - —
Crotonic acid, dms, 200 lbs. or more, l.c.l., dlvd lb. .36 - —
Cryolite, nat., indust., bgs., c.l., works 100 lbs. 13.00 - —
bgs., l.c.l. works 100 lbs. 14.25 - —
Cube root, powd., 5% rotenone, bgs., t.l., works lb .21 - —
bgs., t.l.l., works lb .22 - —
Cubeb berries, NF, bgs. lb. 1.30 - —
Powd., cs. lb. 1.45 - —
Cubeb oil, cns lb 8.75 - 9.00
Cumene, dms, c.l., works lb. .12 - —
dms., l.c.l., works lb. .14 - —
tanks, works lb .11 - —
Cumin seed, Iranian, bgs lb .19 - —
Moroccan, bgs. lb. .36 - —
Turkish, bgs. lb .18 - —
Cumin seed oil, bots., cns lb. 15.50 -17.00
Cyanamide, fertilizer, mixing grade, 21% N, gran., bgs., Niagara Falls, Ont, contract, ton 57.00 - —
Cyanamide, fertilizer, pulv., 21% N, bgs., works, unit-ton. 2.85 - —
Indust, grade, bgs., c.l., works, ton 75.00 - —
bgs., l.c.l., works ton 96.00 - —
Indust grade 6-16 mesh, dms., c.l., works ton 120.00 - —
dms, l.c.l., works ton 140.00 - —
Cyclohexane, 99%, tech., dms., c.l., dlvd, E of Rockies gal. 1.02 - —
dms, l.c.l. same basis gal. 1.10 - —
dms, c.l. dlvd W of Rockies gal. 77 - —
dms., l.c.l., same basis gal. .85 - —
tanks, works gal. .55 - —
98% tech, 40-dm lots or more, f.o.b works gal. .58 - —
5-39 dms, same basis gal. .60 - —
tanks, same basis gal. .36 - —
Cyclohexanol, tech., dms., c.l., works, frt, alld, E lb. .30½- —
dms, l.c.l. works, same basis, lb. .31½- —
tanks, works, same basis lb. .28 - —
Cyclohexanone, tech., dms., c.l., works lb. .33½- —
dms., l.c.l. works lb. .34½- —
tanks, works lb 31 —
Cyclohexylamine, tech., dms., c.l., works lb. .49 - —
dms., l.c.l., works lb. .50 - —
tanks, works lb. .47 - —
Cypress oil, bots. lb 5.30 —

## D

2,4-D, tech, bgs, dms., c.l., works, frt equald lb. .40 —
bgs, dms, l.c.l., same basis lb. .45 .49
2,4-D, butyl ester, dms, c.l., works, lb. .43 —
dms., l.c.l., same basis lb. .48 .52
tanks, same basis lb. .42 —
2,4-D, isopropyl ester, dms., c.l., works lb. .43 —
dms, l.c.l., works lb. .48 .52
tanks, works lb. .42 —
Dammar gum, Batavia, A, E, cs lb No stocks.
East India, Batu, bold, bgs lb. .15½ .18
nubs and chips, bgs lb. .10 .11
black, bold, bgs lb. .16 - .18
nubs and chips, bgs lb. .13 - .14½
unscraped, bgs. lb. .13 .14½
pale, chips, bgs lb. .16 - .18
pale nubs, bgs lb. 20¾ .24
Siam, cs lb. .31½- .34
Singapore, No. 1, bgs. lb. .38 - .44
No. 2, bgs. lb. .29 .32
dust, bgs. lb. .18 .20
No. 3, bgs. lb. No stocks.
Dandelion root, bls lb. .35 .40
DDD, tech, flake grd., fib, dms., c.l., works lb. .45 .47
fib dms, l.c.l., works lb. .46 .48
DDT, flake or lump, bgs., c.l., dlvd lb. .23 - —
bgs, smaller lots, same basis, lb. .25 - —
fib dms., c.l., same basis lb. .24 - —
fib dms., smaller lots, same basis lb .26 - —
Powdered DDT 1c. per pound higher.
DDVP (see Dimethyl dichlorovinyl phosphate).
1-Decanol, tech., dms., c.l., dlvd, E. lb. .43½- —
dms., l.c.l., dlvd, E. lb. .45½- —
tanks, dlvd E lb. .41 - —
Decyl alcohol, mixed isomers, dms., c.l., dlvd lb. .23½- —
dms., l.c.l., dlvd. lb. .25 - —
tanks, dlvd. lb .21 —
Perfume grade, bots. lb 1.00 2.00
Decyl alcohol, normal (see 1-Decanol)
Deertongue leaves, bls. lb. .50 - .60
Defluorinated phosphate, feed grade 14% P, paper bgs., c.l., t.l., Tupelo, Miss ton. 52.00 - —
18% P, paper bgs., c.l., Plant City, Fla ton. 61.25 - —
paper bags, c.l., works, Miss ton. 66.00 - —
19% P, paper bgs., c.l., t.l., works, Houston, Tex ton. 66.35 - —
Prices of defluorinated phosphate in bulk $3 per ton less than bg. c.l. prices
Degras, common (15-17% free fatty acid), 400-lb dms lb. .12 - .14
Neutral (over 2% free fatty acid), 400-lb. dms lb. 13 - —

**Denatured alcohol, ethyl, CD-12, CD-13, CD-14, CD-17, dms., c.l., dlvd. E. of Rockies, gal. .69½- —**
**dms., t.c.l., same basis .... gal. .74½- .80½**
**tanks, dlvd., same basis.... gal. .53½- —**
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.

**Denatured alcohol, ethyl, proprietary solvent, dms., c.l., dlvd. E. of Rockies gal. .72 — —**
**dms., t.c.l., same basis ... gal. .77 .83**
**tanks, same basis .. gal. .56 —**
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.

**Denatured alcohol, ethyl, SD1, dms., dlvd. E. of Rockies gal. .70½- —**
**dms., t.c.l. same basis gal. .75½- .81½**
**tanks, same basis gal. .54½- —**
**SD2B, dms. c.l. dlvd. E of Rockies gal. .69 —**
**dms., t.c.l., same basis gal. .74 .80**
**tanks, same basis gal. .53 —**
**SD3A, dms. c.l. dlvd. E. of Rockies gal. .68 —**
**dms., t.c.l. same basis gal. .73 .79**
**tanks, same basis gal. .52 —**
**SD23A, dms., c.l., dlvd. E. of Rockies gal. .70½- —**
**dms., t.c.l., same basis gal. .75½- .81½**
**tanks, same basis gal. .54½- —**
**SD23H, dms., c.l., dlvd. E. of Rockies gal. .71 — —**
**dms., t.c.l. same basis gal. .76 - .82**
**tanks, same basis gal. .55 —**
**Denatured alcohol, SD29, dms., c.l., dlvd. E. of Rockies gal. .69½- —**
**dms., t.c.l., same basis gal. .74½- .80½**
**tanks, same basis gal. .53½- —**
**SD30, dms., c.l. dlvd. E. of Rockies gal. .68 — —**
**dms., t.c.l., same basis gal. .73 - .79**
**tanks, same basis gal. .52 — —**
**SD23H, dms., c.l., dlvd. E. of Rockies gal. .71 — —**
**dms., t.c.l., same basis gal. .76 - .82**
**tanks, same basis gal. .55 —**
**SD-40, dms., dlvd. E. of Rockies. gal. .70½- —**
**dms., t.c.l., same basis gal. 75½ .81½**
**tanks, same basis gal. .54½- —**
For anhyd. alcohol on above formulas prices are 7c per gal higher
West coast dlvd prices are the same as eastern prices, except in Idaho, Montana, Oregon, and Washington where a 5c differential on tankcars is maintained

**d-Desoxyephedrine hydrochloride, dms lb..15.00 -17.00**
**dl-Desoxyephedrine hydrochloride, dms lb 6.60 — —**
**Dextrin, corn, gum, paper bgs., c.l., 100 lbs. 9.39 - —**
**paper bgs., t.c.l. 100 lbs. 9.54 - —**
**canary dark, paper bgs., c.l. 100 lbs. 9.23 - —**
**paper bgs., t.c.l 100 lbs. 9.38 - —**
**indust. grade, 6-16 mesh, canary light, paper bgs., c.l. 100 lbs. 9.13 - —**
**paper bgs., t.c.l ..... 100 lbs. 9.28 - —**
**white paper bgs., c.l....100 lbs. 8.97 - —**
**paper bgs., t.c.l ..... 100 lbs. 9.12 — —**
Corn dextrin in cotton bgs 15c per 100 lbs higher
**Dextrose anhyd. comi. bgs., c.l. 100 lbs 8.65 — —**
**bgs. t.c.l 100 lbs 8.80 - —**
**Anhyd. special, aluminum foil lined fib dms., 200-lb dms 100 lbs.14.70 - —**
**100-lb dms. 160 lbs.15.20 - —**
**Hydrated, comi., bgs. c.l., ex whse 100 lbs 7.45 - —**
**bgs. c.l., ex whse 100 lbs. 7.60 - —**
**USP dms lb. .19¾- —**
**Diacetone alcohol, acetone-free, dms. c.l., dlvd lb. .15½- —**
**dms., t.c.l., dlvd. lb. .17 — —**
**tanks, dlvd ..... lb .13 — —**
**Tech., dms. c.l. dlvd. ..... lb. .15 — —**
**dms. t.c.l., dlvd ..... lb. .16½- — —**
**tanks dlvd ..... lb. .12½- — —**
**Diacetyl, flavor grade, bots .. lb. 3.30 4.30**
**Di-sec-amyl phenol, dms., c.l., works lb. .32 — —**
**dms., t.c.l., works .. lb. .33 - — —**
**tanks, works .... lb. .29½- — —**
**Di-tert-amyl phenol, dms., c.l., works lb. .32 — —**
**dms., t.c.l., works .... lb. .33 - — —**
**tanks, works ..... lb. .29½- — —**
**Diallylamine, dms., c.l., dlvd. ... lb. .98½- — —**
**dms., t.c.l., dlvd. .... lb. 1.00 - — —**
**tanks, dlvd ..... lb. .96 - — —**
**o-Dianisidine, dry, tech., fib. dms. lb. 2.00 - —**
**Dibenzyl sebacate, dms., c.l., works. lb. .93 - — —**
**dms., t.c.l., same basis ..... lb. .94 - — —**
**tanks, same basis ..... lb. .91 - — —**
**Dibromobenzene, bgs., 500-lb lots. lb. .55 - —**
**2,6-Di-tert-butyl-p-cresol, feed grade, c.l., t.l., dms., dlvd lb. .65 - — —**
**t.t.l., dms., same basis lb. .68 - — —**
**Food grade c.l. t.l. dms., dlvd. lb. .65 — —**
**dms., t.t.l., same basis lb. .68 - 1.10**
**Tech., dms., c.l., t.l., dlvd. .. lb. .57 - — —**
**dms., t.c.l., same basis .... lb. .60 - — —**
**tanks, same basis .. lb. .54 - — —**
**Dibutyl fumarate, dms., c.l., t.l., dlvd E lb. .31½- — —**
**dms., t.c.l., t.t.l., dlvd E lb. .33 - — —**
**tanks, dlvd E lb. .29 - — —**
**Dibutyl maleate, dms., c.l., t.l., dlvd. E lb. .31½- — —**
**dms., t.c.l., t.t.l., dlvd E lb. .33 - — —**
**tanks, dlvd E lb. .29 — —**
**Dibutyl phthalate, dms., c.l., dlvd. E lb. .31½- — —**
**dms., t.c.l., same basis lb. .33 - — —**
**tankcars, tanktrucks, 2,000 gals., same basis lb. .29 - — —**
**tanktrucks, 1,000-1,999 gals., same basis lb. .29 - — —**
**Dibutyl sebacate, dms., c.l., works. lb. .67½- — —**
**dms., t.c.l., works lb. .68½- — —**
**tanks, works lb. .65½- — —**
**Dibutyl tartrate, dms., works, frt. alld lb. .65½- — —**
**Dibutylamine, dms. c.l., dlvd lb. .55½- — —**
**dms., t.c.l., same basis lb. .57 — —**
**tanks, same basis lb. .53 — —**
**Dicapryl phthalate, dms., c.l., dlvd. lb. .28½- — —**
**dms., t.c.l., dlvd. ..... lb. .30 - — —**
**tanks, dlvd. ..... lb. .26 - — —**
**Dicapryl sebacate, dms., c.l., works. lb. .63 — —**
**dms., t.c.l., works lb. .63½- .64**
**tanks, works lb. .61 — —**
**2,5-Dichloroaniline, dms., works lb. .63 — —**
**3,4-Dichloroaniline, tech., solid, tanks, frt alld lb. .73 — —**
**o-Dichlorobenzene, dms. c.l., frt. alld. E lb. .12¾- — —**
**dms., t.c.l., same basis lb .13¾- — —**
**tanks, same basis lb. .11 — —**
**p-Dichlorobenzene, dms. c.l., f.o.b., works, frt alld E lb. .12 — —**
**dms. 2,000 lbs or more, same basis lb. .14½- — —**
**1,4-Dichlorobutane, dms. c.l. or t.l., works lb .33½- — —**
**dms., t.c.l., or t.t.l., works lb .34 — —**
**tanks, works ..... lb. .32 - — —**

**Dichlorodiphenyltrichloroethane (see DDT).**
**2,2-Dichloroethyl ether, dms., c.l., t.l., dlvd. E lb. .15½- — —**
**dms., t.c.l., t.t.l., same basis... lb. .17 - — —**
**tanks, same basis ..... lb. .13 - — —**
**Dichloroisocyanuric acid, dms., c.l., t.l., frt. equald lb. .65 - — —**
**dms., t.c.l., same basis lb. .75 - — —**
**Dichloropentanes, dist., dms., c.l., works lb. .09 - — —**
**dms., t.c.l., works ..... lb. .06 - — —**
**tanks, works ..... lb. .03 - — —**
**Dichlorophenoxyacetic acid (see 2,4-D).**
**Dicyclohexylamine, dms. c.l., works. lb. .54 - — —**
**dms., t.c.l., works ..... lb. .55 - — —**
**tanks, works ..... lb. .52 — —**
**Dicyclohexyl phthalate, gran., fib. dms. c.l. works frt alld. lb. .49½- — —**
**fib. dms., t.c.l., same basis lb. .51½- — —**
**Dicyclopentadiene, dms. c.l., t.o.b. works lb. .14½- — —**
**dms., t.c.l., same basis ..... lb. .14¾- — —**
**tanks, same basis ..... lb. .12 — —**
**Didecyl phthalate, dms. c.l., works. lb. .28½- — —**
**dms., t.c.l., same basis lb. .30 - — —**
**tankcars, tanktrucks, 2,000 gals. same basis lb. .26 — —**
**tanktrucks, 1,000-1,999 gals, same basis lb .26½- — —**
**Dieldrin, dms., c.l. dlvd. lb. 1.85 - — —**
**dms., t.c.l dlvd lb. 1.90 - — —**
**Diethanolamine, dms., c.l., dlvd E. lb. .27 — —**
**dms., t.c.l., same basis lb. .28½- — —**
**tanks, same basis lb. .24½- — —**
**Diethanolamine lauryl sulfate, dms., c.l., frt. alld lb. .27½- — —**
**dms., t.t.l. frt. alld. lb. .28½- — —**
**tanks, frt alld lb. .26½- — —**
**Diethyl barbituric acid (see Barbital)**

## Denatured Alcohol—Diethylene Glycol Monobutyl Ether Acetate

**Diethyl carbonate, dms. c.l., t.o.b. works lb 47½- — —**
**dms., t.c.l., same basis lb. 48½- — —**
**tanks, same basis lb. 45 — —**
**Diethyl ethanolamines, dms., c.l., dlvd lb. .69½- — —**
**dms., t.c.l., dlvd. ..... lb 71 — —**
**tanks, dlvd ..... lb .67 — —**
**Diethyl oxalate, dms. c.l., t.o.b. works lb 42½ — —**
**dms., t.c.l. same basis lb 43½- — —**
**tanks, same basis lb. 40 — —**
**Diethyl phthalate, dms., c.l., dlvd. lb. .29¾- — —**
**dms., t.c.l., dlvd. ..... lb. .31¼- — —**
**tanktrucks, 1,000-1,999 gals. same basis lb. .27¾- — —**
**tankcars, tanktrucks, 2,000 lb. lots, same basis lb. .27¼- — —**
**Diethyl sulfate, dms, c.l., frt. alld. E. lb. .21 - — —**
**dms., t.c.l., frt. alld. E ..... lb. .22½- — —**
**tanks, frt. alld. E ..... lb. .18½- — —**
**Diethyl thiourea, dms. c.l., t.l., works lb. .58 — —**
**dms., t.c.l. same basis lb. .59 - — —**
**Diethyl toluamide, 90-95% meta isomer, dms. c.l. t.l., works. lb 2.30 - — —**
**5-44 dm. lots, works lb 2.35 - — —**
**1-4 dm. lots, works lb 2.40 — —**
**N,N-Diethyl-m-toluidine, tech., tiq., tanks, frt. alld lb. 83 — —**
**Diethylamine, dms., c.l., dlvd. & dms. t.c.l., same basis lb .52 — —**
**tanks, same basis lb 53½ — —**
**lb 49½ — —**

**N,N-Diethylaniline, dms., c.l., frt. alld lb .57 — —**
**dms., t.c.l., same basis lb .58 — —**
**tanks, same basis lb 55 — —**
**Diethylbenzene, 380 lb. dms., c.l., f.l. frt. alld., Zone 1 lb 17½ — —**
**f.o.b. Zone 2 ..... lb 18½ — —**
**Diethylbenzene, 380-lb. dms., t.c.l., c.l., f.o.b. Zone 1 lb 19½ — —**
**f.o.b. warehouse points, Zone 2 lb .20½ — —**
**Diethylbenzene tankcars, Zone 1 lb .15 — —**
**Zone 2 lb 16 — —**
Zone 1 is East of the Rockies, Zone 2, West of the Rockies
Di-2-ethylhexyl adipate (see Di-octyl adipate).
Di-2-ethylhexyl phthalate (see Di-octyl phthalate).
**Diethylene glycol dms. c.l. dlvd & phthalate). lb 17¾ — —**
**dms. t.c.l. same basis .... lb 19¼ — —**
**tanks same basis lb 15¼ — —**
**Diethylene glycol diethyl ether, dms., c.l., works lb. 55 — —**
**dms., t.c.l., works lb. 55¾- — —**
**Diethylene glycol monobutyl ether, c.l., dms., frt. alld. E lb. 30¾- — —**
**dms., t.c.l., frt. alld. E lb. .32¼- — —**
**tanks, frt. alld E lb. 28¼- — —**
**Diethylene glycol monobutyl ether acetate, dms., c.l., works lb. .30¾- — —**
**dms., t.c.l., works ..... lb. .31½- — —**
**tanks, works ..... lb. 28¾- — —**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Diethylene glycol monoethyl ether, dms., c.l., dlvd. E lb. .22½-
dms., l.c.l., dlvd. E lb. .24 — —
tanks dlvd E lb. .20 — —
Diethylene glycol monoethyl ether acetate dms., c.l., works. lb .27¼- —
dms, t.c.l., works lb. .28 — —
tanks, works lb .25¼- —
Diethylene glycol monomethyl ether, dms., c.l., dlvd. E lb. .21 — —
dms., l.c.l., dlvd. E lb. .22½- —
tanks dlvd E. lb. .18½- —
Diethylenetriamine dms., c.l. dlvd. E lb. 44 — —
dms, t.c.l. dlvd E. lb. 45½- —
tanks, dlvd E lb. 41½- —
Dietrostilbesterol USP, bots. 10-kilo lots kilo 100.00 147 50
bots 1 kilo lot kilo 110 00 152 50
Digitalis leaves USP dom. dms lb 1.25 —
Digitoxin, USP, bots gram 3.75 4.20
Diglycol laurate dms., ton lots lb. .32½- —
Diglycol stearate, dms, t.l lb. .26 — —
Digycolic acid bgs c.l. t.l. works. lb .15½- —
bgs t.c.l. works lb. .16 — —
Dihexyl sebacate dms, c.l., works. lb 66 — —
dms., t.c.l., works lb 67 — —
tanks works lb 64 — —
Dihydrazine sulfate, dms., works lb. 1.10 1.25
Dihydrostreptomycin sulfate bulk. gram. .03 —
1,2-Dihydroxy anthraquinone, dms., works lb 3.45 — —
2,2 Dihydroxy-5-5-dichloro-diphenyl-methane, pure, dms lb 2.55 — —
Tech. dms., 20,000 lbs or more lb 1.11 — —
dms. 1,050 lbs to 20,000 lbs lb 1.13 — —
dms. 150 lbs to 1,050 lbs lb 1.15 — —
Di-isobutyl ketone dms. c.l. dlvd. lb. .17 — —
dms. t.c.l. dlvd. lb. .18½ — —
tanks dlvd lb. .14½- — —
Di-isobutyl phthalate, dms., c.l., dlvd E. lb .31½ — —
dms, t.c.l., same basis lb. 32½- — —
tanks, same basis lb. 29 — —
Di-isobutylene dms. c.l., dlvd. E lb. .10 — —
dms, t.c.l., dlvd E lb. .11½- — —
tanks dlvd E. lb. .08 — —
Di-iso-octyl phthalate, dms., c.l., works lb. .29 — —
dms., t.c.l., same basis lb. .30½- — —
tanktrucks, 1,000-1,999 gals. works lb. .27 — —
tankcars tanktrucks, 2,000 gals., works lb. .26½- — —
Di-iso-octyl sebacate, dms., c.l., works lb 62 — —
dms., t.c.l., works lb. .61¼- — —
tanks, works lb 60 — —
Di-isopropanolamine, dms., c.l., dlvd. lb. 23¼ — —
dms., t.c.l., same basis lb. 24¾- — —
tanks, same basis lb. 20¾- — —
Di-isopropylamine dms., c.l., dlvd. E. of Rockies lb .50½- — —
dms., t.c.l., same basis lb. .52 — —
tanks, same basis lb 48 — —
Dillweed oil, dom., bots., dms lb 5.25 — —
Dimethyl anthranilate, cns. lb 4.15 — —
Dimethyl dichlorovinyl phosphate, 55-gal dms. dlvd lb 3.50 — —
Dimethyl ethanolamine, anhyd., dms., c.l., dlvd E lb. .78 — —
dms., t.c.l., dlvd. E lb. .79½- — —
tanks, dlvd E lb. .75½- — —
Dimethyl ethanolamine, 70%, dms., c.l., dlvd., 100% basis, contained amines lb. .78 — —
dms. t.c.l. dlvd. 100% basis lb. .79½- — —
tanks, dlvd., 100% basis lb. 75½- — —
Dimethyl hydroquinone ums. lb 1.90 2.20
Dimethyl phthalate, dms., c.l., works lb. .29¾- — —
dms., t.c.l., works lb. .31¼- — —
tanktrucks, 1,000-1,999 gals., same basis lb. .27¾- — —
tankcars, tanktrucks, 2,000 gals., same basis lb. .27¼- — —
Dimethyl sebacate, dms., c.l., works. lb 1.31 — —
dms., t.c.l., works lb 1.30 — —
tanks, works lb 1.28 — —
Dimethyl sulfate, ret. dms., c.l., works lb. 17½- — —
ret. dms., t.c.l., works lb. .18½- — —
tanks, works lb. .16½- — —
Dimethyl sulfide, dms., c.l., works. lb. .17½- — —
dms., t.c.l., works lb. .18½- .19½
tanks, works lb. .15 — —
Dimethyl sulfoxide, dms., c.l., f.o.b. works lb. .35 — —
dms., t.c.l., same basis lb .37 — .38
tanks, same basis lb. .33 — —
Dimethylamine 25% soln., dms. c.l., frt. equald. 100% basis lb. .38 — —
dms. l.c.l. frt equald 100% basis lb. .38½- — —
tanks, frt equald 100% basis. lb .28 — —
40% soln., dms., c.l., frt. equald., 100% basis lb. .35 — —
dms. t.c.l., frt equald 100% basis lb. .35½- — —
N,N-Dimethylaniline, dms., c.l., frt. alld lb. .28 — —
dms. t.c.l., same basis lb. .29 — —
tanks, same basis lb. 26 — —
N,N Dimethylformamide, dms., c.l., t.l., works lb. .32½- — —
dms., t.c.l., works lb. .33 — .34
tanks, works lb 30 — —
3,4-Dinitroaniline, dms, frt. alld lb. .75 — —
Dinitroaniline orange toner, CP, bbls, dlvd E of Rockies. lb 1.61 — —
Dinitroaniline orange toner prices 1c. higher W of Rockies
m-Dinitrobenzene 89°C., dms. lb .26 — —
3,4-Dinitrochlorobenzene, crystallizing at 46½°C, dms., c.l., frt. alld E lb. .17¼ — —
dms., t.c.l. frt. alld E. lb. .17¾ — —
tanks frt alld E lb. 17 — —
2,4 Dinitrophenol bbls lb 41 — —
2,4 Dinitrotoluene oil, dms. Refd 63°C dms lb 11 — —
Dioctyl adipate dms, c.l., works lb 23 — —
dms., l.c.l., works lb. 42½- — —
tanks works lb. 43½- — —
Dioctyl phthalate dms, c.l., frt. alld. E lb. 40 — —
dms., l.c.l. frt. alld. E lb. .29 — —
tanktrucks 1,000-1,999 gals., same basis lb. .30½- — —
tankcars tanktrucks, 2,000 gals., same basis lb. .27 — —
Dioctyl phthalate prices ¾c. higher in West. lb. .26½- — —
Dioctyl sebacate dms, c.l., works lb 61¼ — —
dms. t.c.l., works lb. 62¼- — —
dms. l.c.l., works lb 62¼ — —
tanks works dlvd. lb 59¼ — —

1,4-Dioxane, dms., c.l., frt. alld. E. lb. .31½- — —
dms., l.c.l., frt. alld. E lb. .33 — —
tanks, frt. alld. E lb. .29 — —
Prices in the west are 2c. per lb. higher.
Dipentaerythritol, bgs. c.l. t.l., dlvd. E lb. .34 — —
bgs., l.c.l., t.l.l., dlvd. E lb. .35 — —
Dipentene, dest.-dist., dms., c.l., works gal. 58 — —
dms. t.c.l. works lb 62 — —
dms., l.c.l. ex whse. gal 78 — —
tankscars, works gal. 41 — —
Steam dist. dms. c.l., works, South gal 72 — —
dms., t.c.l., dlvd New York gal 91 — —
tanks, works, South lb 55 — —
Dip oil (see Tar acid oil)
Diphenolic acid 1,000-lb or more, bgs., works lb 75 — —
Diphenolic polyether acids, 1,000-lb or more, bgs. works lb 1.00 — —
Diphenyl, bgs., c.l. t.l., works lb. 16¾- — —
bgs., l.c.l., works lb. 18½ — —
tanks, works lb 15¾ — —
Diphenyl oxide perfume grade cns. lb. .55 .70
Diphenyl phthalate dms, c.l. works. lb. .52 — —
dms., t.c.l., works lb .54 — —
Diphenylamine, acid flake, bgs. c.l., works frt. equald lb .32 — —
bgs., l.c.l., same basis lb .34 — —
Refd., fused tanks same basis. lb. .29 — —
Refd. diphenylamine in dms. ½c per lb higher
Diphenylguanadine bgs., dms., ton lots, frt. alld lb. .51 — —
bgs., smaller lots, frt. alld lb. .52 — —
Diphenylhydantoin-sodium USP, dms lb 5.00 5.60
Dipropylene glycol dms. c.l., frt. alld lb .17 — —
dms. t.c.l. frt alld lb .18½ — —
tanks frt alld lb 14¼ — —
Dipropylene glycol prices 1c. higher in West.
Dipropylene glycol methyl ether, dms. c.l. dlvd E lb .20 — —
dms. t.c.l. same basis lb 21½ — —
tanks, same basis lb 18½- — —
Dithiodibenzoic acid dms 1,000-lb lots, works lb 1.80 — —
Di-o-tolylguanidine dms, ton lots, frt. alld lb. .71 — —
dms., smaller lots, frt. alld lb. .72 — —
Di-o-tolylthiourea tech solid, dms., c.l. t.l. frt alld lb. .58 — —
Divinylbenzene 20-25% dms, c.l., works frt equald lb. .20 — —
dms., t.c.l. same basis lb .21 — —
tanks, same basis lb. 19 — —
50-60% dms. c.l. works 100% basis lb 1.00 — —
dms. t.c.l., works 100% basis lb 1.05 — —
tanks same basis lb 90 — —
Dodecenyl succinic anhydride dms. c.l., t.l., dlvd. E lb. .50 — —
dms, t.c.l., l.t.l. same basis lb. .52 — —
Dodecylbenzene, dms. c.l. t.o.b., works, frt equald lb .134 — —
dms., t.c.l. same basis lb .144 — —
tanks, same basis lb. .11 — —
Dodecylphenol c.l., frt alld lb .22½- — —
dms., t.c.l. same basis lb. .23¼- — —
tanks, same basis lb. .20 — —
Dodecylphenol prices on shipments to Western States are 2c per pound higher
Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 1-lb lots, dlvd.:
Blue, FD&C, No 1 lb.45.65 17.60
No 2 lb.15.65 17.60
Green, FD&C, No. 1 lb.15.65 17.60
No 2 lb.19.60 22.85
No 3 lb.31.30 35.90
Red, FD&C, No. 2 lb 3.30 4.10
No 3 lb.19.60 22.85
No 4 lb 5.55 7.50
Dyes, coaltar, certified colors for drugs and cosmetics 500-lb and 1-lb lots, dlvd:
Yellow, FD&C, No. 5 lb. 3.30 4.10
No 6 lb 3.30 4.10
Dyes, coaltar, certified colors for drugs and cosmetics, 200-lb and 1-lb lots, dlvd.:
Black, D&C, No 1 lb.10.50 10.95
Brown D&C, No 1 lb.15.65 16.10
Green D&C, No. 5 lb.15.65 16.10
No 6 lb 15.65 16.10
No 7 lb.14.35 14.80
Orange, D&C, No. 3 lb 10.50 10.95
No 4 lb 19.60 20.05
No 5 lb 3.80 4.25
Red, D&C, No. 17 lb 10.50 10.95
No 18 lb 23.60 24.00
No 19 lb 15.00 15.45
No 21 lb 3.90 4.35
No 22 lb 10.50 10.95
No 28 lb.24.15 24.65
No 33 lb 17.00 17.45
Violet, D&C, No 2 lb.15.65 16.10
Yellow D&C, No. 7 lb.10.50 10.95
No 8 lb 10.50 10.95
No 10 lb 13.05 13.50
No 11 lb 13.05 13.50
Dyes, coaltar, certified colors for drugs and cosmetics, external use, 500-lb and 1-lb. lots, dlvd.:
Blue Ext. D&C, No. 1 lb.15.65 16.10
Green Ext. D&C No 1 lb 15 65 16 10
Red, Ext. D&C, No 1 lb 13.05 13 50
Yellow Ext D&C, No 1 lb 10 50 10 95
Dyes, coaltar for general use in cloth dyeing (numbers are those of the Color index scale or prototype), contract dlvd No.
11110 Brilliant scarlet BN lb 1.79 — —
13390 Fast blue SR lb 1.57 — —
14025 Yellow 2G lb 1.26 — —
14030 Orange R extra, conc. lb 1.64 — —
14645 Chrome black F lb 77 — —
14720 Rubine XX, conc lb 1.76 — —
15510 Orange Y, extra conc. lb 83 — —
15575 Orange RR lb 99 — —
15620 Fast Red A, conc. lb. 1.77 — —
15705 Chrome blue black R, conc. lb 1.12 — —
16150 Scarlet 2RL lb 1.22 — —
16255 Brilliant scarlet 3RN, conc lb 1.26 — —
16230 Fast light, orange 2G lb 1.39 — —
17590 Brown PG lb 3.00 — —
18050 Phloxine 2G lb. 1.16 — —
18055 Fuchsine 6B lb 1.53 — —
18965 Fast yellow 2G lb 2.32 — —
19140 Yellow XX lb 2.48 — —
19555 Yellow NN conc. lb 3.67 — —
20170 Brown Y lb 1.53 — —
20470 Blue black, extra, conc lb. 1.44 — —
21010 Brown, RX, conc lb. 1.42 — —
22240 Scarlet B lb 2.81 — —
22310 Red FC lb 1.57 — —
22311 Brown MCW lb. 1.59 — —
22810 Blue 2B, extra conc lb 1.51 — —
23500 Red 4BX, conc. lb 1.80 — —
24410 Sky blue FF extra conc. lb 1.95 — —
24895 Brilliant yellow conc lb 3.27 — —
26360 Navy blue 3R, conc lb 1.84 — —
26695 Black F, conc. lb 2.30 — —
2.900 Milling Red 3R conc lb 2.24 — —
27075 Neutral black 2B, conc lb 2.75 — —
27720 Gray L lb 2.18 — —
29165 Fast scarlet 4BNC lb 2.23 — —

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Colour index scale of prototype), contract, dlvd. No.
30015 Diazo black VJ conc. lb. 3.48 — —
30045 Yellow brown K, extra lb. 1.45 — —
30235 Black EB, 200% lb. 1.33 — —
30295 Green BY conc. lb. 1.07 — —
35660 Brown B lb. 2.89 — —
37565 Naphthol SWF lb. 1.85 — —
40000 Yellow 2G lb. 1.44 — —
41000 Yellow OX lb. 2.45 — —
42000 Green V, crystals lb. 2.73 — —
42040 Brilliant green G crystals. lb. 3.62 — —
42090 Blue EG lb. 1.85 — —
42100 Milling green 6B, conc. lb. 4.78 — —
42640 Violet 4BXN lb 2.43 — —
43830 Brilliant blue, BBG lb. 2.44 — —
44045 Blue B, extra conc. lb. 3.61 — —
45170 Red BX lb. 4.76 — —
50415 Nigrosine SSJ lb. 1.03 — —
52015 Blue GXX lb. 2.54 — —
58005 Alizarin red SC lb. 3.64 — —
59700 Golden orange GFD, single paste lb. 2.70 — —
59710 Flaming orange 6RD double powder lb 4.90 — —
59800 Dark blue BO, single paste. lb. 2.28 — —
59825 Jade green NC supra, double paste lb. 1.75 — —
61570 Alizarin green CG extra lb 3.81 — —
63010 Alizarin blue SAPG lb 3.90 — —
63515 Alizarin blue black B lb 3.26 — —
69825 Blue BLFD double paste lb. 2.76 — —
70806 Brown BR single paste lb 2.03 — —
Dyes, coaltar oil-soluble, 100-lb. drums, dlvd. No
12140 Oil scarlet BL lb 1.87 — —
12055 Oil orange 7078 V lb 1.38 — —
26120 Oil red N 1700 lb 1.94 — —
42535B Methyl violet base lb 1.88 — —
44045B Victoria blue base lb 4.06 — —
50415B Oil black 8603 lb. .80 — —
61565 Alizarin cyanine green base. lb. 6.13 — —
Dyes, coaltar, spirit soluble, 100 lb. dms., dlvd., Black RB lb. 3.89 — —
Spirit brown GN lb. 5.30 — —
Spirit orange R conc. lb. 5.87 — —
Spirit red B conc. lb. 6.41 — —
Pr 317 Spirit yellow 2R conc lb 4.62 — —
Pr 554 Spirit blue THN lb. 5.06 — —

## E

Echinacea root, bls. lb. 1.25 — —
Elm bark grinding, bls. lb. .30 — .32
Powd., bbls., ¼s lb. .60 — —
Select, bundles lb. .75 — —
Emetine hydrochloride, USP, bots. oz.48.40 — —
Endrin, tech, dms., 100-lbs or more, 100% basis, dlvd lb. 2.77 — —
Eosin red toner bbls, works lb. 1.95 — —
Ephedrine syn., USP, anhyd., bots. 100-oz lots oz. .98 — 1.00
hydrous bots. 100-oz lots, oz. .92 — —
Ephedrine hydrochloride NF, dms., 100-oz., f.o.b. works oz. .75 — —
Ephedrine sulfate USP, cryst., dms., 100-oz f.o.b works oz. .73 — —
USP powd., dms., 100-oz., same basis oz. .73 — —
Epichlorohydrin, dms., c.l., dlvd lb. .29½- — —
dms. t.c.l., dlvd. lb. .31 — —
tanks, dlvd lb. .27 — —
Epinephrine base, syn. USP, bots., 100 gram lots gram. .58 — —
Epsom salt (see Magnesium sulfate)
Erigeron oil cns lb.11.00 — —
Ergot, NF, dms., tin-lined lb. 2.00 2.50
Eserine salicylate, bots oz.34.50 -40.00
Eserine sulfate bots. oz.86.00 — —
Ester gum, gum-rosin type, dms., c.l. dlvd. Ill., Md. Ky., E. States, Minneapolis, N C., Ohio St Louis, St Paul Va., W Va lb. .18½- — —
Wood-rosin type dms. c.l., same basis lb. .18½- — —
Ether (see specific product)
Ethyl acetate, nat., ferment, 85-88%, dms. c.l. dlvd lb. .15 — —
dms., t.c.l., dlvd lb. .16½- — —
tanks dlvd lb. .12½- — —
95-98% dms. c.l., dlvd. lb. .15¼- — —
dms. t.c.l., dlvd lb. .16¾ — —
tanks dlvd lb 12¾ — —
99%, dms., c.l., dlvd lb. .15½- — —
dms. t.c.l. dlvd lb .17 — —
tanks dlvd lb .13 — —
syn., 95-88%, dms., c.l., dlvd lb. .15 — —
dms. t.c.l., dlvd lb. .16½- — —
tanks dlvd lb. .12¼- — —
Ethyl acetate syn. 95-98%, dms., c.l., dlvd lb. .15¼- — —
dms., t.c.l., dlvd lb. .16¾ — —
tanks dlvd lb. .12¾- — —
99%, dms. c.l. dlvd. lb. .15½- — —
dms., t.c.l., dlvd. lb. .17 — —
tanks dlvd lb. .13 — —
Ethyl acetoacetate, dms., c.l., dlvd. dms., t.c.l., dlvd lb. 58½- — —
tanks, dlvd lb. .60 — —
Ethyl acrylate, dms., c.l., t.l., dlvd. dms., t.t.l., dlvd lb. .34¾- — —
tanks, dlvd. lb. .35¾- — —
Ethyl alcohol, 190 pf., USP, tax paid dms c.l. dlvd E of Rockies gal 20.63 — —
dms. t.c.l. same basis gal. 20 73 -20.84
USP, tax-free, dms., c.l., dlvd. E. of Rockies gal. .68 — —
dms. t.c.l. same basis gal. 78 — .89
tanks, same basis gal 52 — —
Ethyl alcohol, absolute 200 pf., tax paid, dms dlvd E of Rockies gal.21 75 — —
dms. t.c.l. same basis gal.21.85 -21.96
tanks same basis gal.21 59 — —
Ethyl alcohol denatured (see Denatured alcohol ethyl)
Ethyl aminobenzoate USP (see Benzocaine).
Ethyl amyl ketone dms. c.l., dlvd. lb .20 — —
dms. t.c.l. same basis lb. 21½ — —
tanks same basis lb 17½ — —
Ethyl benzoate bots. lb. .75 — 1.00
Ethyl bromide tech., 98%, dms., c.l., frt. alld. E lb 43 — —
dms. t.c.l. frt alld E lb. 45 — —
tanks, frt. alld. E lb. .40 — —
2-Ethyl butyl alcohol, dms., c.l., works lb .30 — —
dms., t.c.l., works lb. 30¾- — —
tanks, works lb. .28 — —
Ethyl butyl ketone dms., c.l., t.l., works lb. .36 — —
dms t.c.l., t.l. works lb. 36¾- — —
tanks works lb. 34 — —
Ethyl butyrate dms, works lb. .85 — 1.00
Ethyl carbamate (see Urethane)
Ethyl cellulose, vis. 4 cps., ogs., 5,000 lb lots or more, frt. alld E lb. .73 — —
bgs. smaller lots frt alld E lb. .75 — —
vis. 10, 20, 50, 100, 150 cps., bgs., 5,000-lb. lots or more, frt. alld. E lb. .68 — —
bgs. smaller lots frt alld E. lb. .70 — —
Ethyl chloride tech. cyls., works. dms, works lb 20 — 22
tanks works lb 18 — 20
Ethyl cinnamate, cns. lb. 3.35 — 3.50

Ethyl ethanolamines, mixed, dms., c.l., dlvd. E lb. .43¼- — —
dms., t.c.l., dlvd. E lb. .44½- — —
tanks, dlvd E lb. .41½- — —
Ethyl ether, absolute, ACS, dms, Anesthesia, USP, dealers, 1-lb. cns lb 1.01 — —
½-lb cns lb 1.09 — —
¼-lb cns. lb 1.21 — —
Indust., dms, c.l., dlvd. lb. .13½- — —
dms., t.c.l., dlvd. E lb. .15 — —
tanks, dlvd E. lb. .11 — —
2-Ethyl hexoic acid dms., c.l., t.l., dlvd. E lb .37 — —
dms., t.c.l., t.t.l., dlvd. E lb. .38½- — —
tanks, dlvd E. lb. 34½ — —
2-Ethyl hexoic acid 1c. higher W. of Rockies.
2-Ethylhexyl acrylate, dms., c.l., t.l., straight or mixed frt. alld. E lb. .39½- — —
dms., t.t.l., same basis lb. .40½- — —
tanks, same basis lb. .37 — —
2-Ethylhexyl alcohol, dms., c.l., dlvd. E lb. .23¾- — —
dms., t.c.l., dlvd. E lb. .25¼- — —
tanks, dlvd. E lb. .21¼- — —
Ethyl iodide chys. works lb 3.30 — —
Ethyl methacrylate dms. c.l., frt. equald lb .52 — —
dms. t.t.l. frt equald lb 52½- — —
tanks frt equald lb 50 — —
Ethyl morphine hydrochloride, USP bots oz.11.85 — —
Ethyl oenanthate dms lb 1.05 1.30
Ethyl oxalate (see Diethyl oxalate).
Ethyl silicate dist (see Tetraethyl orthosilicate).
Ethyl silicate 40% available SiO, dms., c.l., dlvd. E lb. .49 — —
dms., t.c.l., dlvd. E lb. .50½- — —
tanks, dlvd. E lb. .47 — —
N-Ethyl-a-naphthylamine, dms., works, lb 1.04 — —
N-Ethyl-m-toluidine tech., uq., tanks frt. alld lb .83 — —
N-Ethyl-o-toluidine, bbls lb. .88 — —
Ethylamine (see Mono-, Di- or Tri-)
N-Ethylaniline, dms. c.l., frt. alld. dms. t.c.l., frt. alld lb. .57 — —
tanks, frt. alld lb. .58 — —
lb. .55 — —
Ethylbenzene 99% dms., c.l., t.l., frt. equald lb. .14 — —
dms t.c.l., same basis lb. .16 — —
tanks, same basis lb. .11½- — —
Ethylene, contract refy gate lb .0475- .052a
Ethylene dibromide dms, c.l., frt. equald lb. .30½ — —
dms. t.c.l. frt equald lb .31½ — —
tanks frt equald lb. .28½ — —
Ethylene dichloride dms. c.l., dlvd. lb .11½- — —
dms., t.c.l., same basis lb. .13 — —
tanks, same basis lb 09 — —
Ethylene dichloride prices W. of Rockies, 1c per lb higher
Ethylene glycol, indust dms., c.l., dlvd E lb. .16 — —
dms., t.c.l., same basis lb. .17½- — —
tanks, same basis lb. .13½- — —
Ethylene glycol monobutyl ether, dms. c.l., dlvd E lb. .22 — —
dms. t.c.l., dlvd E lb. .23½- — —
tanks, dlvd E lb. .19½- — —
Ethylene glycol monoethyl ether, dms. c.l. dlvd E lb. .21 — —
dms., t.c.l., dlvd E lb. .22½- — —
tanks, dlvd E lb. .18½- — —
Ethylene glycol monoethyl ether acetate dms. c.l. dlvd. E lb. .19½- — —
dms., t.c.l., dlvd. E lb. .21 — —
tanks, dlvd E lb. .17 — —
Ethylene glycol monoethyl ether, dms. c.l. dlvd E lb. .21 — —
dms., t.c.l., dlvd E lb. .22½- — —
tanks, dlvd E lb. .18½- — —
Ethylene glycol monomethyl ether, dms. c.l. dlvd E lb. .21 — —
dms., t.c.l., dlvd E lb. .22½- — —
tanks, dlvd E lb. .18½- — —
Ethylene glycol monostearate, flake, 150-lb. ctn lb. .33 — —
Ethylene oxide dms. c.l. dlvd E. dms., t.c.l., dlvd E lb. .21½- — —
tanks dlvd E lb. .24½- — —
Ethylene trichloride (see Trichloroethylene)
Ethylenediamine 85-88%, dms., c.l., dlvd E., 100% basis lb. .42 — —
dms t.c.l. dlvd E. 100% basis. lb. .43 — —
tanks dlvd E., 100% basis lb. .40 — —
Ethylvanillin, 100-lb. fib. dms., 500-less than 500-lb. lb. 6.75 — —
Eucalyptol, USP cns. dms lb. 7.40 — —
Eucalyptus oil NF rectified, 70-75% dms lb. .85 1.40
NF rectified, 80-85% dms. lb. .43 — —
Eugenol, tech., dms lb. .53 — .62
USP, dms. lb. 0.00 — —
Euphorbia herb, bls lb. 1.90 — —
lb. .12 — .15

## F

F salt paste, tech., dms., works lb. 2.50 — —
Fennel oil, sweet, USP, cns. lb. 2.60 — —
Fennel seed Argentine, bgs lb .16 — —
French light bgs lb .16 — —
Indian, light, bgs lb. .17½- — —
Rumanian bgs lb. .14 — —
Yugoslav light bgs lb. .16½- — —
Fenugreek seed, Moroccan, bgs lb. .09 — —
Ferric chloride, anhyd., tech., 350-lb. dms., c.l., works 100 lbs. 8.00 — —
dms., l.c.l., works 100 lbs. 9.00 — —
Indust., cryst., bbls., c.l., works, 100 lbs. 5.25 - 6.75
bbls. l.c.l., works 100 lbs 5 75 7.25
42° Be. photo grade, cbys., c.l., works 100 lbs. 7.25 8.25
sewage grade, tanks, frt equald. 100% basis 100 lbs 4.00 — —
USP cryst. dms t.l. works lb .08½- — —
Ferric citrate, gran., dms. lb. .86 — —
Ferric hypophosphite, NF, 175-lb. dm lb. 4.25 — —
Ferric naphthenate, liq., 6% Fe, dms. frt alld lb. .28¼- — —
Ferric oxalate, tech., gran., 50-lb. dm., f.o.b. works E lb. 1.30 — —
Ferric oxides (see iron oxides)
Ferric phosphate NF, soluble, gran pearls, cs lb. .72 .75
Ferric pyrophosphate, NF VII soluble, gran. pearls, 225-lb dm.lb. .79 — —
Ferric resinate, dms., ton lots, frt. alld lb. .45 — —
Ferric stearate dms. c.l. frt alld. dms. t.c.l., frt alld lb. .39 — —
Ferric sulfate, partly hydrated, bgs. c.l., works ton.35.25 — —
bgs., t.c.l., works ton.36.25 -42.25
bulk, c.l., works ton.33.25 — —
Ferric-amonium citrate, NF, brown, gran., 100-lb. dms lb. .68 — —
NF, green, gran., 100-lb. dms., frt. equald lb. .68 — —
Ferric-ammonium oxalate, fine gran., dms lb. .27½- 29½
Ferric-potassium oxalate, fine gran., 250-lb dm., f.o.b. works lb. .32½- —
Ferric-sodium oxalate fine gran., dms lb. 27½- 29½
Ferrous gluconate, USP, 200-lb dm., frt. equald lb. .96 — —

| | | | |
|---|---|---|---|
| Ferrous sulfate, gran., bgs., c.l., works | ton | 34.50 | — |
| bgs., l.c.l., dlvd. Metropolitan area | 100 lbs. | 3.35 | 4.25 |
| bbls., c.l., works | ton | 40.00 | — |
| bulk, c.l., works | ton | 27.00 | — |
| USP, cryst., bbls., dms. | lb. | .09½- | .10 |
| Fir balsam, Canada, bbls. | gal. | 34.00 | 35.00 |
| Oregon, bbls. | gal. | 3.40 | 4.64 |
| Fir oil, Canada, cns | lb. | 1.70 | 1.75 |
| Fish oil, refd., alkali, dms. | lb. | .1330- | .1380 |
| Kettle-bodied, dms. | lb. | .1560- | .1610 |
| Light-pressed, dms. | lb. | .1180- | .1230 |
| tanks | lb. | .1030- | — |
| Fishliver oil, nat., high potency, 100,000 to 1,500,000 A units per gram, dms 1,000,000 units. | | .13 | — |
| Fishmeal, dom., menhaden, 60% protein, grd., bgs., Atlantic and Gulf coasts | ton | 108.00 | 110.00 |
| Fishscrap, dom., menhaden, dried, 60% protein, grd. bgs., Atlantic and Gulf coasts. | ton | 102.00 | 106.00 |
| Fleaseed (see Psyllium seed) | | | |
| Folic acid, USP, bots., fib. dms., kilo lots or more | gram | .25 | — |
| 10% feed grade fib dms., 3 kilos or more | kilo | 30.00 | 44.00 |
| Formaldehyde, 37% (inhibited, 12 to 15% methanol), USP, dms., c.l. dlvd | lb. | .0695- | — |
| tanks, dlvd. | lb. | .0405- | — |
| Formaldehyde, methanol-free (uninhibited), tanks, dlvd | lb. | .0375- | — |
| Formic acid 85% cbys. c.l., works. | lb. | .1570- | — |
| cbys., l.c.l., works | lb. | .1620- | .1720 |
| 90%, cbys., c.l., works | lb. | .1625- | — |
| cbys., l.c.l., works | lb. | .1675- | .1775 |
| Fringetree bark, bls | lb. | .65 | .70 |
| Fumaric acid tech., 250-lb dms., c.l., frt. equald | lb. | .23¼- | — |
| dms., l.c.l., frt equald | lb. | .24¾- | — |
| Fumaric acid in bags ½c. per lb less. | | | |
| Furfural dms. c.l. works | lb. | .13 | — |
| dms., l.c.l., works | lb. | .14 | — |
| tanks, dlvd. E | lb. | .11½- | — |
| tanks, dlvd. W | lb. | .12½- | — |
| Furfuryl alconol, cns., works | lb. | .28 | — |
| dms., c.l., t.l., Newark, N. J | lb. | .19½- | — |
| dms., l.c.l., t.l., Newark, N. J | lb. | .20½- | — |
| dms., c.l., t.l., Memphis, Tenn. | lb. | .18 - | — |
| dms., l.c.l., t.l., Memphis, Tenn. | lb. | .19 - | — |
| tanks, dlvd. E. of Denver | lb. | .175 - | — |
| Fusel oil, refd. dms., c.l., dlvd | lb. | .18 - | — |
| dms., l.c.l., dlvd. | lb. | .19½- | — |
| tanks, dlvd | lb. | .15½- | — |

## G

| | | | |
|---|---|---|---|
| G salt, bbls., frt. alld., 100% basis. | lb. | .73 | — |
| Gallic acid NF VII, bbls., 1,000-lb. lots | lb | 2.00 | — |
| bbls., smaller lots | lb | 2.02 | 2.22 |
| Gallic acid, tech., bbls., 1,000-lb. lots | lb. | 1.78 | — |
| bbls., smaller lots | lb | 1.80 | 2.00 |
| Gamma acid dry grd., bbls., frt. alld | lb | 1.75 | — |
| Gammapicoline (see g-picoline). | | | |
| Garlic oil, dom., bots. | oz. | 4.75 | 6.05 |
| Imp., bots. | oz. | 4.50 | 5.00 |
| Gaultheria oil (see Wintergreen oil). | | | |
| Gelatin, edible 75 AOAC test, bbls., c.l., dlvd | lb. | .55 | — |
| 150 AOAC test, bbls., c.l. dlvd. | lb. | .64 | — |
| 200 AOAC test, bbls., c.l., dlvd. | lb. | .70 | — |
| 225 AOAC test, bbls., c.l., dlvd. | lb. | .74 | — |
| 275 AOAC test, bbls., c.l., dlvd. | lb. | .82 | — |
| Gelsemium root, bls. | lb. | .30 | .33 |
| Gentian root, bls. | lb. | .24 | — |
| Grd., bbls., hxs | lb | .30 | — |
| Powd., bbls., hxs. | lb | .30 | — |
| Geraniol extra cns., dms. | lb | 1.75 | 2.40 |
| Soap grade dms | lb | .90 | 1.75 |
| Standard cns., dms. | lb. | 1.65 | — |
| Synthetic dms | lb | 1.30 | — |
| Geranium oil, Algerian, cns. | lb. | 19.00 | 22.00 |
| Bourbon, cns. | lb. | 19.00 | 22.00 |
| Turkish (see Palmarosa oil). | | | |
| Geranyl acetate cns | lb | 1.90 | 2.70 |
| Synthetic dms | lb. | 1.45 | — |
| Ginger oil, dist., bots. | lb. | 12.00 | 14.00 |
| Ginger oleoresin NF from African root, bots | lb. | 4.25 | 5.00 |
| NF from Jamaican root, bots. | lb. | 7.75 | — |
| Ginger root, Cochin, bgs | lb. | .19½- | — |
| Jamaican, No. 3, bgs. | lb. | .28 | — |
| Nigerian, split, bgs | lb. | .20 | — |
| Sierra Leone, bgs | lb. | .35 | — |
| Glauber's salt (see Sodium sulfate). | | | |
| Gluconic acid tech. 50% dms., c.l., t.l., f.o.b. works | lb. | .20 | — |
| dms., l.c.l., f.o.b. works | lb. | .21 | — |
| tanks, f.o.b works | lb. | .17 | — |
| Glue, bone, extracted, dry bone, 86 jellygrams, bgs., c.l., dlvd | lb. | .16 | — |
| 131 jellygrams, bgs., c.l., same basis | lb. | .16½- | — |
| 164 jellygrams, bgs., c.l., same basis | lb. | .18½- | — |
| Glue, bone, extracted, dry bone, 191 jellygrams, bgs., c.l., same basis | lb. | .19½- | — |
| 222 jellygrams, bgs., c.l., same basis | lb. | .21 | — |
| Glue, bone, green 40 jellygrams, bgs., c.l., same basis | lb. | .16 | — |
| 86 jellygrams, bgs., c.l., same basis | lb. | .16 | — |
| 115 jellygrams, bgs., c.l., same basis | lb. | .16½- | — |
| Glue, bone, green, 135 jellygrams, bgs., c.l., same basis | lb. | .17½- | — |
| 164 jellygrams, bgs., c.l., same basis | lb. | .18½- | — |
| 180 jellygrams, bgs., c.l., same basis | lb. | .19½- | — |
| 200 jellygrams, bgs., c.l., same basis | lb. | .20½- | — |
| Bone glue, l.c.l., prices 2c higher. | | | |
| Glue, hide, 70-94 jellygrams, bgs., c.l., dlvd | lb. | .18 | — |
| 95-149, bgs., c.l., dlvd | lb. | .19 | — |
| 122-149, bgs., c.l., dlvd | lb. | .20½- | — |
| 150-177, bgs., c.l., dlvd | lb. | .22½- | — |
| 178-206, bgs., c.l., dlvd | lb. | .25 | — |
| Glue, hide, 207-236, bgs., c.l., dlvd | lb. | .28 | — |
| 237-266, bgs., c.l., dlvd | lb. | .30½- | — |
| 267-298, bgs., c.l., dlvd | lb. | .32½- | — |
| 299-330, bgs., c.l., dlvd | lb. | .34½- | — |
| 331-362, bgs., c.l., dlvd | lb. | .36½- | — |
| 363-394, bgs., c.l., dlvd | lb. | .38 | — |
| Glue, hide, 395-427, bgs., c.l., dlvd. | lb. | .40 | — |
| 428-460, bgs., c.l., dlvd | lb. | .42 | — |
| 461-494, bgs., c.l., dlvd | lb. | .44 | — |
| 495-529, bgs., c.l., dlvd | lb. | .46 | — |
| Hide glue, l.c.l. prices 2c. higher. | | | |
| l-Glutamic acid, 99½%, fib. dms., 100-lb lots, frt alld | lb. | 1.80 | — |
| fib dms. 25-lb lots, frt. alld. | lb | 1.88 | — |
| l-Glutamine bots., 1-9 kilo lots, | kilo. | 150.00 | 300.00 |
| Bots. 50-kilo lots | kilo. | 100.00 | — |
| Bots. 500-kilo lots | kilo. | 75.00 | — |
| Glycerine, dom., nat., crude, saponification, 88%, tanks, dlvd. | lb. | .13½- | — |
| nat., crude, soaplye, 80%, tanks, dlvd | lb. | .1120- | — |
| nat., refd., USP, CP, 99%, dms., c.l., dlvd | lb. | .26½- | — |
| dms., l.c.l., dlvd | lb. | .27½- | — |
| tanks, dlvd. | lb. | .24⅞- | — |
| Glycerine, dom., nat., refd., USP, CP, 96%, dms., c.l., dlvd | lb. | .25¾- | — |
| dms., l.c.l., dlvd. | lb. | .26½- | — |
| tanks, dlvd. | lb. | .25 - | — |
| nat., high gravity, dms., c.l., dlvd | lb. | .26½- | — |
| dms., l.c.l., dlvd | lb. | .27¼- | — |
| tanks, dlvd. | lb. | .24¾- | — |
| Glycerine, dom., 99.5%, dms., c.l., dlvd | lb. | .26¾- | — |
| dms., l.c.l., dlvd | lb. | .27½- | — |
| tanks, dlvd. | lb. | .25 - | — |
| Imp., nat., crude, soaplye, 80%, c.i.f. | lb. | Nom. | |
| Glycine (see Aminoacetic acid). | | | |
| Glycerol (see Glycerine). | | | |
| Glycolic acid (see Hydroxyacetic acid). | | | |
| No. 2, 90-95%, bgs., fib. dms., ex whse | lb. | .29 - | .31 |
| Glycolonitrile, 70%, aqueous, dms., c.l., t.l., works | lb. | .40 | — |
| dms., l.c.l., same basis | lb. | .42 | — |
| tanks, same basis | lb. | .39 | — |
| Glyoxal, 30%, dms., c.l., works | lb. | .20½- | — |
| dms., l.c.l., works | lb. | .21¼- | — |
| tanks, works | lb. | .18 - | — |
| Golden seal root, NF, tested, bls. | lb. | 2.90 | 3.00 |
| Gramicidin, 1 to 5 kilos, f.o.b. works. | gram | 4.25 | — |
| Grapefruit oil, dms. | lb. | 2.75 | 2.90 |
| Graphite, amorp., powd., bgs., fib. dms., ex whse | lb. | .08 - | .09½ |
| Cryst., 88-90%, powd., bgs., fib. dms., ex whse | lb. | .19 | .21½ |
| 90-92%, powd., bgs., fib. dms., ex whse | lb. | .21 | .24½ |
| Graphite, 95-97%, powd., bgs., fib. dms., ex whse | lb. | .29 - | .31½ |
| Graphite, flake, No 1, 90-95%, bgs., fib. drs., ex whse | lb. | .29 - | .31 |
| Grease, white choice all hog, tanks, dlvd | lb. | .08¾- | — |
| Yellow, tanks, dlvd. | lb. | .07½- | .07⅝ |
| Grease oil, No. 1, dms., c.l., f.o.b. Chicago | lb. | .12½- | — |
| dms., l.c.l., same basis | lb. | .14½- | — |
| tankcars, same basis | lb. | .11 - | — |
| Extra winter, strained, dms., c.l., Chicago | lb. | .15½- | — |
| dms., l.c.l., same basis | lb. | .17½- | — |
| tankcars, same basis | lb. | .14 - | — |
| Grease oil, prime, burning, dms., c.l., same basis, Chicago | lb. | .17½- | — |
| dms., l.c.l., same basis | lb. | .19½- | — |
| tankcars, same basis | lb. | .16 - | — |
| Other areas ¾c. higher, except Texas and West Coast, 1¼c. higher. | | | |
| Grindelia robusta herb, bls | lb | 40 | — |
| Guaiacol NF cryst, dms, tins | lb | 2.10 | 2.15 |
| liq., cbys., dms | lb. | 2.30 | 2.40 |
| Guaiacwood oil cns | lb | 65 | .80 |
| Guaiacol carbonate NF VII, dms | lb | 3.40 | 3.45 |
| Guar gum, edible, bgs., c.l., f.o.b. shipt. pt | lb. | .38 | — |
| bgs., l.c.l. same basis | lb. | .40 | .42 |
| Indust., bgs., c.l., same basis | lb. | .32 | — |
| Tech., bgs., c.l., same basis | lb. | .30 | — |

**GREEN PIGMENTS**
Green pigment quotations are listed individually. For example, prices on Green, chrome, may be found in the C's under Chrome green

**GUMS**
Gum quotations are listed individually. For example, prices on Gum, Dammar may be found in the D's under Dammar gum

## H

| | | | |
|---|---|---|---|
| H acid, dry, bbls, c.l., frt alld., 100% basis | lb | 1.00 | — |
| bbls., l.c.l., same basis | lb | 1.05 | — |
| Hansa yellow 10 G, bbls., dlvd. E. of Rockies | lb | 2.45 | — |
| Hansa G yellow, pigment, bbls | lb | 2.20 | — |
| Hawthorn berries, bgs. | lb | .18 | .20 |
| Heliotropin 100-lb lots, dms. | lb | 2.60 | 3.40 |
| Hellebore root dom., green, bls | lb | 70 | .75 |
| Helonias root bls. | lb | 1.50 | — |
| Hemlock oil, cns. | lb | 2.55 | 3.00 |
| Henbane leaves, bls | lb. | .40 | .45 |
| Heptachlor dms. c.l., t.l., frt. alld., 100% basis | lb. | .96 | — |

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Heptane indust. tankcars, New Jersey and New York gal. .20 - —
Houston Texas gal. .1625- —
Hesperidin, purif., 50 kilos, f.o.b. works kilo. 19.70 - —
Hesperidin methylchalcone, 50 kilos, f.o.b. works kilo. 49.25 - —
Hexachlorophene dms., 1,100 lbs or more lb 1.84 - —
dms. to 1,100 lbs lb 1.94 - —
Hexalin (see Cyclohexanol)
Hexamethylenetetramine tech. bgs., 20,000-lb lots or more, Perth Amboy or New York City lb .233 —
bgs., 1,000-19,999-lb. lots, same basis lb .243 —
bgs smaller lots same basis lb .253 —
Hexamethylenetetramine, tech., fib. dms., 1,000-lb. lots or more same basis lb .250 - —
fib dms smaller lots, same basis lb .253 —
USP, bgs., 500 lbs. or more, f.o.b. Fords, N. J., dlvd New York City and Philadelphia lb 42½- —
bgs. smaller lots same basis lb 43½ 48½
Hexane industrial, tankcars, New Jersey and New York gal .20 —
Houston Texas gal 16 —
1-Hexanol, dms. c.l. works lb 35 —
dms. l.c.l. works lb 35¾ —
tanks works lb 33 —
Hexyl cinnamic aldehyde, dms lb 3.95 4.00
n-Hexyl methacrylate, dms. c.l. works lb 75½ —
dms c.l.c. works lb 76 —
Hexyl salicylate dms. lb 1.70 1.75
Hexylene glycol, dms. c.l., dlvd lb 17½ —
dms. c.l., dlvd lb 19 —
tanks dlvd lb 15 —
Hexylresorcinol, USP, dms., 25-lb lots or more dlvd lb 14.00 —
dms. smaller lots, dlvd lb 14.50 - —
Homatropine hydrobromide, USP bots oz 3.25 —
Homatropine methylbromide, USP, bots oz 3.00 3.25
Hoofmeal 17-18% ammonia bulk, c.l. Chicago unit-ton 6.75 —
Horehound herb, bls lb .18 .20
Hydrastis (see Goldenseal)
Hydrazine hydrate, 85%, 240-lb. dms., c.l., works lb. 1.28 - —
240-lb. dms., l.c.l., works lb. 1.35 - 1.55
Hydriodic acid, purif., 47%, 2-cbys., f.o.b. works lb 2.92 —
Hydroabietyl alcohol, tech., solid, dms. c.l., dlvd, zone 1 lb 29¼ —
dms. l.c.l., dlvd zone 1 lb 29¾ .30¼
tanks dlvd zone 1 lb 27¼ —
Zone 1 for hydroabietyl alcohol comprises all of continental US except Ariz., Calif., Colo., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo. and the western part of Texas
Hydrobromic acid, medicinal, 48%, cbys frt equaid lb 48 .50
Hydrochloric acid anhyd (see Hydrogen chloride)
Hydrochloric acid 18 cbys., c.l., works 100 lbs 2.50 —
cbys. l.c.l. dlvd Metropolitan area 100 lbs 2.90 3.05
tanks, works, frt equaid ton 28.00 —
20°, cbys., c.l., works 100 lbs 2.75 —
cbys. l.c.l. dlvd Metropolitan area 100 lbs 3.15 —
tanks works frt equaid ton 30.00 —
22°, cbys., c.l., works 100 lbs. 3.25 - —
cbys. l.c.l. dlvd Metropolitan area 100 lbs 3.65 —
tanks works frt equaid ton 35.00 —
Hydrochloric acid CP USP consumers cbys. extra, c.l., works lb. 15¾ —
cbys l.c.l. same basis lb 17¼ 17¾
5-pint bots., extra cs., c.l., same basis lb. 20¾- —
lb 20¾ —
Hydrocortisone acetate, bulk, bots., kilo lots or more gram .95 —
Hydrocortisone alcohol, bulk bots., kilo lots or more gram 1.00 1.90
Hydrocyanic acid dilute NF 2% 5-pint bots., f.o.b. works, pint .70 - —
Hydrofluoric acid anhyd (see Hydrogen fluoride)
Hydrofluoric acid, aqueous, 60% 55-gal or 30-gal dms c.l. t.l. dlvd 100 lbs 19.25 - —
55-gal dms. l.c.l., t.l. dlvd 100 lbs 20.75 —
20-gal dms. c.l. t.l. dlvd 100 lbs 21.00 —
20-gal., dms., l.c.l., t.l., dlvd, 100 lbs. 22.50 - —
tanks works frt equaid 100 lbs 13.40 —
Delivered prices apply to all states east of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington and Wyoming. In those states add $2.70 per cwt. for drum delivery
Hydrofluosilicic acid dms. works, 30% basis lb .07 —
Hydrofuramide dms fib ctns., works lb .30 .40
50-lb cyls c.l. works lb .55 .60
Hydrogen chloride anhyd., 50-lb. cyls c.l. works lb .45 —
Hydrogen cyanide liq. 98% tanks, works lb .14 —
Hydrogen fluoride anhyd. cyls., dlvd E lb .30½ .32½
cyls. dlvd W lb .39 —
tanks works lb .18 —
Hydrogen peroxide 35% dms., c.l., dlvd lb .202 —
dms. c.l. dlvd lb .211 —
tanks dlvd lb .1800- —
Hydroquinone photo grade dms., 50-lbs f.o.b. works lb 1.10 —
Tech dms. c.l. dlvd lb .82½ —
dms l.c.l. dlvd lb .84½ —
Hydroquinone monomethyl ether, dms t.l. dlvd lb 2.59 —
dms t.l. dlvd lb 2.61 - —
Hydroxyacetic acid, tech. 70% dms Philadelphia and Chicago lb .11 —
tanks Belle W. Va lb .073 —
Hydroxycitronellal, cns. lb. 5.65 - 6.00
Hydroxyethyl cellulose, fib. dms., 20,000-lb. lots or more, f.o.b. shipping point lb .74 - —
fib dms 5,000- lots, same basis lb .79 - —
fib dms 100 to 1,999-lb. lots, basis lb .83 - —
Hydroxyethyl cellulose, fib. dms., smaller lots, same basis lb .93 - —
(Highest viscosity (15,000 cps.) grade is 10c. per lb. higher.)
Hyoscine (see Scopolamine)
Hyoscyamine hydrobromide, bots oz 7.75 8.50
Hyoscyamine sulfate, bots oz 7.75 8.50
Hypophosphorous acid, purif. 50% 10 cbys. f.o.b. works lb 1.95 —
NF 50% 10 cbys. same basis lb 1.35 —

## I

Ichthammol, NF, dms. lb. .75 - 1.05
Indigo (see Dyes, coaltar, 1171 Indigo, syn.)
Indole, CP, bots. lb. 13.65 - 15.00
Inositol, 50-100 lb dms., 1,000 lbs or more, dlvd lb 4.50 —
50-lb. dms., less than 1,000 lb., dlvd lb 4.75 - —
10 lb cns., 10-50 lbs dlvd lb 5.00 - —
5 lb bots., dlvd lb 5.25 - —
Insect flowers (see Pyrethrum)
Iodine, crude, kgs. lb. 1.10 —
Resub., USP, dms., f.o.b. works lb 2.20 2.22
Iodochlorohydroquinolin USP dms lb 3.60 —
Iodoform NF dms. 300-lbs. f.o.b works lb 4.90 —
dms. 100-lbs. same basis lb 5.05 —
a-Ionone cns lb 4.60 5.75
b-Ionone cns lb 4.15 6.15
Ipecac root, whole, bgs lb 8.00 - 8.50
Powd., bbls., bxs lb. 9.50 - 10.00
Irish moss, bleached, prime, bls lb. .30 - .32
Iron blue alkali-resisting, bbls. c.l., dlvd. E lb. .60 - —
bbls. l.c.l. ton lots same basis lb. .61 - —
bbls., smaller lots, same basis, lb. .62 - —
Dom., reg. bbls., c.l., dlvd. E lb. .55 - —
alkali-resistant, dom., reg., bbls., c.l., ton lots, same basis lb. .56 - —
bbls. l.c.l. smaller lots same basis lb. .57 - —
Imp. British reg. bbls. c.l. dlvd. E lb. .48 - —
bbls. l.c.l. ton lots same basis lb .49 —
bbls., l.c.l., smaller lots, same basis lb. .50 - —
Iron blue dlvd. prices 1c higher for Pacific Coast states: Wash., Ore., Cal., N. M., Ariz., Mont., Wyo., Utah, Col. and Nev.
Iron compounds (see Ferric or Ferrous)
Iron oxide black pure bgs. c.l., works lb. .14¾ —
bgs. l.c.l. works lb .15 —
Iron oxide brown pure bgs. c.l., works lb .14¼ —
bgs. l.c.l., works lb .14½ —
Iron oxide metallic, brown, bgs., works lb. .05½ —
Iron oxide Persian Gulf red, bgs., c.l. works lb .08¾ —
Iron oxide, red, dom., pure bgs., Bethlehem, E. St. Louis, New York City lb .14¼ —
Iron oxide, red nat. 75-85% ferric oxide bgs. c.l. works lb .06¼ —
bgs. l.c.l. works lb .06½ —
Iron oxide Spanish red, bbls., c.l., ex dock lb .05¾ Nom
bbls. l.c.l. ex dock lb .06 Nom
bbls. l.c.l. ex whse New York lb .06½ Nom
Iron oxide yellow nat. French type, bgs., c.l., works lb. .06¾ .07
Peruvian type bgs l.c.l. lb .023 .024
Iron oxide yellow, pure, light lemon shade bgs c.l. works lb .12¼
other shades same basis lb. .12 .12½
Isoamyl alcohol, dms. c.l. works, frt alld E lb .27½ —
dms., l.c.l. same basis lb .29 —
tanks, same basis lb .25 —
Isoborneol cns lb 1.44 1.80
Isobornyl acetate cns lb .46 .56
Isobornyl formate, dms lb 1.15 1.20
Isobornyl propionate, dms lb 1.20 1.25
Isobutyl acetate, perfume grade cns lb .30 .35
Solvent grade, dms., c.l., dlvd, E. of Rockies lb. .15¼- —
dms., l.c.l. same basis lb .16¾ —
tanks same basis lb .12¾- —
Isobutyl alcohol dms., c.l., dlvd lb .15½ —
dms., l.c.l., dlvd lb .17 —
tanks, dlvd lb .13 —
Isobutylene, 99% tanks, works gal. .38 —
Isobutyl isobutyrate, dms. f.o.b works lb .75 —
Isobutyraldehyde, CP, dms., c.l., dlvd lb .27½ —
dms. l.c.l. dlvd lb .28½ —
Tech dms. c.l. dlvd. lb .22 —
dms., l.c.l., dlvd. lb. .23½- —
tanks, dlvd lb .19½ —
Isobutyric acid dms c.l., t.l., dlvd, lb .35 —
dms. l.c.l. t.l.l same basis lb .36½- —
t.c. t.l. same basis lb .33 —
Isobutyronitrile, dms., c.l., dlvd, lb. .47½ —
dms. l.c.l. dlvd lb. .48½ —
tanks, dlvd lb .45 —
Isoeugenol, cns. lb. 3.10 3.40
Isoniazid, powd., bulk, 50 kilos kilo. 12.00 —
Isonicotinic acid, 100-lb fib dms., works lb 4.25 - —
Isonicotinic acid hydrazide (see Isoniazid)
Iso-octyl alcohol, dms. c.l., dlvd E. lb .23½- —
dms., l.c.l., dlvd E. lb .25 —
tanks, dlvd E lb .21 —
Isopentane, coml. grade, tanks, f.o.b Tex. refy gal. .16½ —
Isophorone, dms., c.l., dlvd lb. .24½- —
dms., l.c.l., dlvd lb .25¼- —
tanks, dlvd lb. .22¼- —
Isophthalic acid dms, c.l., works, frt. equaid lb. .19 - —
dms., l.c.l., same basis lb. .20 - —
Isopropanol (see Isopropyl alcohol).
Isopropyl acetate dms. c.l. dlvd, lb. .14 —
dms. l.c.l. same basis lb. .15½ —
tanks, same basis lb. .11½ —
Isopropyl alcohol, refd., 91%, dms., c.l. dlvd gal. .58 —
dms. l.c.l., dlvd gal. .68 —
tanks, dlvd gal. .49 —
Isopropyl alcohol refd. 95%, c.l., dms. dlvd gal. .60 —
dms. l.c.l. dlvd gal. .70 —
tanks, dlvd gal .44 —
Isopropyl alcohol, anhyd., c.l., dlvd, gal. .62 - —
dms., l.c.l. dlvd. gal. .72 —
tanks, dlvd gal. .46 —
Isopropyl benzene (see Cumene)
Isopropyl ether dms., c.l., dlvd lb. .09½- —
dms. l.c.l. dlvd lb .11 —
tanks, dlvd lb .07 —
Isopropyl-N-(3-chlorophenyl) carbamate (CIPC) tech., dms., c.l. t.l. works lb 1.00 —
dms., l.c.l., works lb 1.05 1.25
tanks, works lb .99 —
Isopropylamine (see Mono, Di, or Tri-).
Isopropyl-N-phenyl carbamate, 450-lb fib dms. c.l., t.l., works lb. .75 - —
450-lb. fib dms., l.c.l., works lb. .80 - .90
Isoquinoline, dms., works lb. .65 1.25
Itaconic acid, refd. bgs c.l., f.o.b. works lb. .39½- —
bgs., l.c.l., same basis lb. .41 - .43
Tech., bgs., c.l., same basis lb. .34½- —
bgs., 500-lbs. same basis lb. .36 - —

## J

J acid, paste bbls. works, 100% basis lb 2.70 - —
Powd. bbls. same basis lb 2.75 - —
Jalap root, NF, bls lb .55 - .60
NF, powd., bbls., bxs lb .65 .70
Japan wax cs. lb .29 .31
Juniper berries, bgs. lb .16 .17
Juniper berry oil NF, bots. lb 2.90 3.75
Twice rectified, bots lb 3.25 —
Juniper tar oil NF dms lb .42 .60
Juniper wood oil, tech cns. lb .38 .55

## K

Kaolin (see also Clay, China).
Kaolin NF powd., fib dms lb .10 .12
NF colloidal 50-lb bgs. lb 15½ 17½
Karaya gum No 1, NF powd., bls lb. .48 .50
No 2, powd. bbls. lb. .43 .45
No 3, powd. bbls lb. .37 .40
Koch acid, bbls. frt. alld., 100% basis lb 1.00 —
Kola nuts, bgs. lb. .11 - .12

## L

L acid, bbls., works lb. 1.25 —
Lacquer diluent, petroleum, 140°F. 200°F b.r., tankcars, New Jersey and New York gal. .20 —
Group 3 gal. 15125- —
Houston Texas gal 16 —
200°F-240°F b.r., tankcars, New Jersey or New York gal. .20 —
Group 3 gal 14125- —
Houston, Texas gal. 16 —
Lactic acid, edible 50%, bbls dms., c.l., frt equaid lb. .1985- —
bbls. dms. 20 or more, frt. equaid lb. .2035- —
bbls. dms. 5 to 19, frt equaid. lb. .2085- —
bbls. dms. 1 to 4, frt equaid. lb .2135- —
80%, bbls., c.l., dms., frt. equaid. lb. .3335- —
bbls dms. 20 or more, frt equaid lb .3385- —
bbls., dms., 5 to 19 frt. equaid. lb. .3435- —
bbls. dms. 1 to 4 frt equaid lb .3485- —
Plastic grade, 50% c.l., bbls., works lb .2740- —
bbls. 20 or more works lb .2790- —
bbls 5 to 19 works lb .2940- —
bbls. 1 to 4, works lb. .2890- —
80% bbls c.l. works lb .4625- —
bbls 5 to 19 works lb .4725- —
bbls 1 to 4 works lb .4775- —
Tech., 44%, bbls., c.l., works, 100 lbs. 12.45 - —
bbls l.c.l. works 100 lbs 12.85 - —
USP 85% cbys lb .85 —
Lactose, crystalline edible, bgs., 23,000-lb lots, frt equaid lb .14 —
bgs 6,000 lb lots, frt equaid lb 14½ —
bgs 2,000 lb lots frt equaid lb 14¾ —
bgs. 200 lb lots, frt equaid lb 15¼ —
Edible lactose in fib dms. ½c higher
Lactose, ferment grade bgs. c.l., works lb. .08¾- —
Lactose, USP, reg., fib. dms., 30,000-lb. lots, frt. equaid lb. .21½- —
fib dms 2,000 lb lots frt equaid lb 22¼ —
200-1,880-lb lots, frt. equaid lb 22¾ —
USP lactose in bags ½c to 1c lower
Lactose USP spray dried bgs., t.l., frt equaid lb. .18½- —
bgs. l.c.l. frt equaid lb 19 19¾
Lady's slipper root, bls lb 3.00 3.50
Lamp black, bgs. c.l. works lb. .16 .45
Lanolin, USP anhyd. 400-lb dms., works lb. .24 .28
USP, anhyd., cosmetic 400 lb. dms works lb. .26 .30
USP hydrous 400 lb dms., works lb. .20 —
Lard, cash, dm., Chicago lb. .1110- —
Lard oil (see Grease oil).
Larkspur seed bgs lb .55 —
Laurel leaf oil dms cns. lb 9.75 .12.50
Laurent's acid, bbls lb. .87 - —
Lauric acid, pure, dms. lb. .30¼- .32¾
bags lb. .28¾- .31¼
tanks lb. .27¾- —
Lauryl alcohol, bots lb 2.00 2.50
n-Lauryl methacrylate, dms., c.l., t.l. works lb .65½- —
dms t.l. works lb .66 —
Lavandin oil, 22-24%, dms. lb. 1.15 - —
Abrial, dms. lb. 1.20 - —
Lavender flowers, medium, bls lb .55 .60
Ord bls lb .20 .25
Select, bls lb .90 1.00
Lavender flower oil USP, French, 35-37% ester, cns lb 1.85 4.00
40-42% ester, cns. lb. 3.50 - 3.65
Spike, Spanish, cns lb 1.75 2.00
Lead acetate, NF cryst., gran., powd., bbls lb. .34½- —
White, cryst., bbls lb. .25½- —
gran. bbls. lb. .26½- —
powd bbls lb. .26¼- —
Lead arsenate acid powder, dealers, 3-50-lb bgs or any quantity frt alld on $150 or more lb. .30½- —
1-lb bgs same basis lb .47 —
Lead, blue basic sulfate, bbls., c.l., shipt point frt. alld lb. .17 - —
bbls l.c.l. same basis lb. .18 - —
Lead carbonate (see Lead, white, basic carbonate)
Lead chloride, 400-lb. fib. dms lb. .56 - —
Lead iodide NF, 1 lots lb 3.82 - —
Lead linoleate fused, 26.5% Pb, dms. lb. .38 - —
Lead metal, prime, pigs, New York. lb. .11 - —
St. Louis lb. .1080- —
Lead monosilicate, bgs., c.l., works, frt equaid lb. .1385- —
bgs. l.c.l., same basis lb. .1485- —
Lead naphthenate, liq., 16% Pb., dms. dlvd lb. .19½- —
24% Pb. dms., dlvd lb. .24¼- —
Solid, 67% Pb. dms dlvd lb .31¾- —
Lead nitrate, tech., cryst., 400-lb. fib. dms lb. .2675- —
Lead orthosilicate gel, 50-60% PbO, dms. works lb. .29¾- .34¼
Lead peroxide tech powd. bbls lb. .45 - .50
Lead phthalate dibasic, dms. works, lb. .41 - —
Lead, red 95% $Pb_3O_4$ or less, bbls., c.l., works, frt equaid, lb. .1378- —
bbls., l.c.l., same basis lb. .1475- —
97% $Pb_3O_4$, bbls., c.l., same basis lb. .1395- —
bbls., l.c.l., same basis lb. .1495- —
98% $Pb_3O_4$, bbls., c.l., same basis lb. .1410- —
bbls., l.c.l., same basis lb. .1510- —
Lead resinate precip, 23% Pb dms., lb. .49 —
Lead salicylate, normal dms. works lb. .46 —
Lead silicate (see Lead white basic silicate).
Lead silicochromate, bgs., c.l., f.o.b mfrs point frt alld lb .20 —
bgs. l.c.l. same basis lb .21 —
Lead sulfate (see Lead blue basic sulfate).
Lead tallate liq. 16% Pb. dms lb. .17¼- —
24% Pb. dms lb. .21¼- —
Solid 30% Pb. dms lb. .26¾- —
Lead white, basic carbonate, bgs., c.l. shipt pt. frt alld lb. .18 —
bgs l.c.l same basis lb. .19 —
Lead, white, basic silicate, bgs., c.l., shipt. pt., frt. alld lb. .16½- —
bgs., l.c.l., same basis lb. .17½- —
Lecithin edible tech. bleached, non-ret dms. c.l. works, lb. .14 .15
non-ret dms l.c.l. same basis lb .15 .16
unbleached, non-ret. dms., c.l., same basis lb. .13 - .14
non-ret dms c.l same basis lb .14 .15
Lemon bioflavonoid complex, 50 kilos, f.o.b works kilo. 14.20 —
Lemon oil USP Calif. cns. dms lb. 1.80 - 2.50
Messina, cns lb. 4.00 - 6.50
Lemongrass oil, cns., dms lb 2.45 2.50
dl-Leucine, dms. 1 kilo, works kilo. 50.00 - —
Licorice root gran bls lb 13 —
Powd. bls lb 15 .16
Whole bls lb .09 .10
Lignaloe wood oil, Mexican, cns lb. 2.75 - 3.50
Lignosultonate (see under Ammonium or Sodium lignin sulfonate)
Lilac oil lb 1,500.00
Lime chemical (quicklime), bulk, c.l. 50,000 lbs works ton 14.25 —
Chemical hydrated bgs. c.l. same basis ton 17.25 —
spray bgs. c.l. same basis ton 18.25 —
For New York delivery add $6.29 freight charge
Lime oil, dist., Mexican, dms lb. 5.50 6.00
West Indian, dms lb 5.50 6.00
Expressed, West Indian, dms lb 6.50 7.75
Lime salts (see Calcium)
Lime-ammonium nitrogen, 20.5% N (see Ammonium nitrate with dolomite)
Linalool ex bois de rose oil dms lb 2.45 4.25
Syn. 98-100% dms. works lb 2.40 2.75
Linalyl acetate ex bois de rose 90-92% dms lb 2.65 4.50
96-98% dms lb 3.25 —
Syn. 98-100% dms. works lb 2.75 —
Lindane 25% formulation to distributors dms. frt alld lb 1.35 1.50
99%, tech. to formulators, 250-lb. dms., 5,000 lbs., dlvd lb. 2.13 - —
100-lb dms. 5,000-lbs. dlvd lb 2.15 - —
250 lb dms. less than 5,000 lbs. dlvd lb 2.18 —
100-lb dms. less than 5,000 lbs dlvd lb 2.20 —
Linden flowers, with leaves bls lb .35 .40
Without leaves bls lb .42 .45
Linseed meal, expeller, 32%, bulk, Minneapolis, mills ton. 60.50 - —
Extracted, 34%, bulk, same basis, ton. 56.50 - —
Linseed oil, raw, dms. c.l., New York lb. .1670- —
dms., l.c.l., New York lb. .1760- .1810
tanks, f.o.b. Minneapolis lb. .1310- —
tanks, New York lb. .1422- —
tankwagon New York lb. .1472- —
Boiled linseed oil, .006c. per lb. higher.
Linseed oil acid, dist., dms lb. .2075- —
Water white, dms lb. .2425- —
Litharge coml., powd. obls., c.l., works, frt. equaid lb. .1325- —
bbls. l.c.l., same basis lb. .1425- —
Lithium aluminum hydride (lump), dms. works lb. 33.00 - 39.00
Lithium benzoate dms lb 1.65 1.67
Lithium bromide, NF, gran. bgs., works frt equaid lb 2.60 —
Lithium carbonate, NF, dms., ton lots lb. .58 - —
dms., 1,999 lbs. or less lb. .64 - —
Tech., dms. ton lots lb. .57 - —
dms., 1,999 lbs. or less lb. .63 - —
Lithium chloride CP anhyd., dms., ton lots lb. 1.23½- —
Tech. anhyd dms. c.l., t.l., dlvd, or works frt alld lb. .87 —
dms. l.c.l. same basis lb. .88 .92
Lithium citrate NF dms. ton lots, lb 1.50 —
Lithium fluoride dms., 20,000-lb. lots, dlvd lb. 1.75 - —
bbls., ton lots and more, dlvd lb. 1.85 - —
bbls., less ton lots, dlvd lb. 1.90 - —
Lithium hydride, powd., dms., 500-lbs lots or more works, lb. 9.50 - —
Lithium hydroxide, monohydrate, dms., c.l., t.l., frt. alld lb. .60 - —
dms., l.c.l., frt. alld lb. .64 - —
Lithium manganite dms. works lb. .95 1.05
Lithium nitrate tech. dms., 100-lb lots lb 1.15 1.25
Lithium salicylate dms. lb 1.60 1.70
Lithium silicate dms. works lb. 1.10 1.20
Lithium stearate dms. c.l. works, lb. .47½- —
dms. ton lots works lb. .48½- —
dms. less-ton lots, works lb. .53½- —
Lithium sulfate dms. 100-lb. lots, lb 1.15 1.25
Lithium titanate dms. works lb 1.15 1.25
Lithol red toner barium, bbls., works lb. 1.03 - —
Lithol-rubine red toner pure, bbls., works lb. 1.65 - —
Resinated, bbls., works lb. 1.47 - —
Lithopone ord. bgs. c.l. dlvd E. lb. .08½- —
bgs. l.c.l. dlvd E lb .09½- —
Titanated (high-strength), bgs., c.l., dlvd lb. .11 —
bgs. l.c.l. dlvd lb. .12 —
Lobelia herb, bls lb. .95 1.10
Loheline sulfate bots. 50-oz. lots, works oz. 30.00 —
Locust bean gum powd. bgs lb .35 .40
Lycododium, cs. lb 2.50 3.00
l-Lysine monohydrochloride, 25-lb. dms lb 4.95 —

## M

Mace, Siauw, No. 1, bls lb 1.58 —
No. 2 whole, bls lb 1.40 —
Siftings, bls lb 1.35 —
Mace oil dist., cns, dms lb 9.00 11.00
Magnesia calcined, tech bgs., ctns. frt equaid lb 25¾ 26¼
Tech, syn, rubber grade light, bgs., c.l., frt. equaid lb 28¾ .30

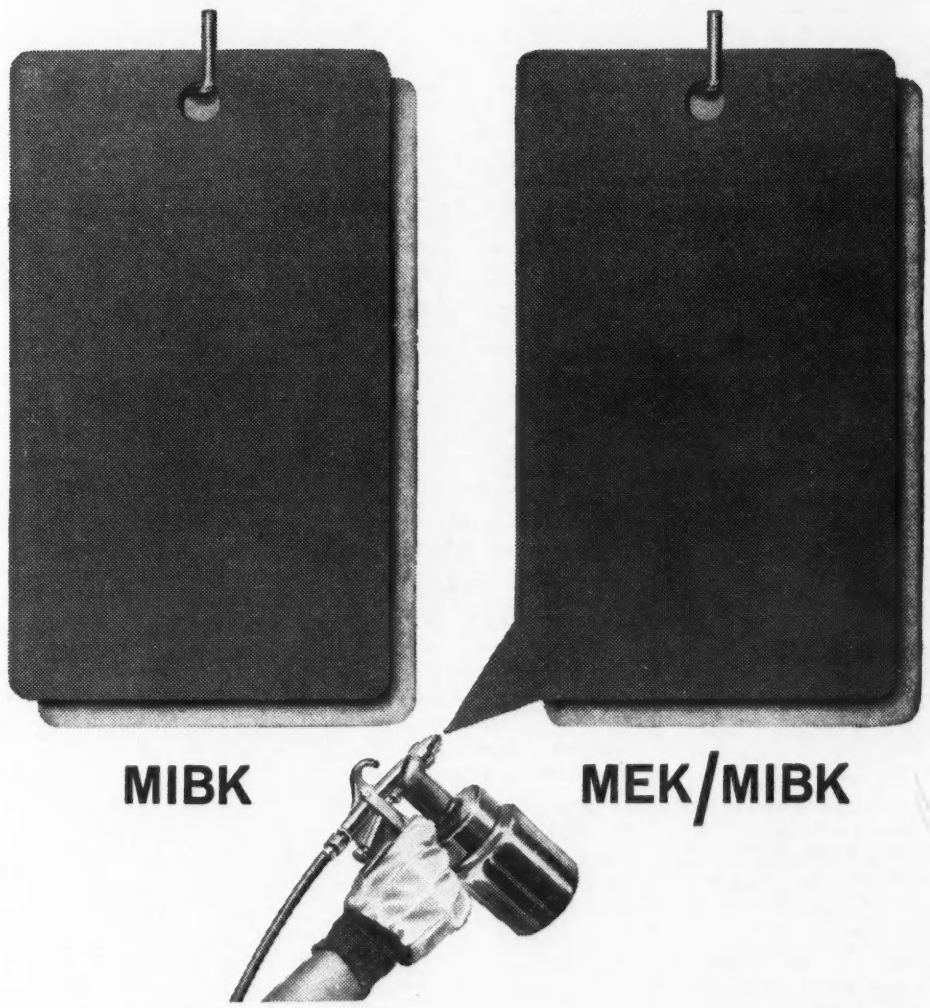
Magnesia, Calcined, rubber grade, extra light, bgs., c.l., frt. equald..lb. .28 - —
bgs., l.c.l., frt. equald lb. .28¾- —
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points
Magnesia, calcined, tech., heavy, 85%, bgs., c.l., f.o.b. Lunning, Nev ton 39.50 - —
91%, bgs., c.l., same basis. ton 49.50 - —
95%, bgs., c.l, same basis ton 59.00 - —
USP, light, bgs. ..... lb. .36½- .37½
USP, heavy, bgs. ..... lb. .36½- .37½
Magnesite, chemical grade, calcined, powd., bgs., c.l., works, frt. equald ton 86.25 - —
Magnesite, chemical grade, dead-burnt, standard grain, bulk, c.l., Chewelah, Wash. ton 46.00 - —
Magnesium bromide, 80-lb. dm., f.o.b. works lb. 1.15 - —
Magnesium carbonate, tech., bgs., c.l., frt. equald lb. .11 - —
bgs., t.l., frt. equald lb. .11½- —
bgs., l.c.l., frt equald lb. .13½- .14
USP, bgs., c.l., frt. equald..lb. .13½- —
ogs., t.l., frt equald lb. .14 - —
bgs., l.c.l. frt equald lb .15 16
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points.
Magnesium chloride, annyd., 92%, flake or pebble, drums., c.l. works lb. .12¾- —
dms. l.c.l., works lb. .14 .15
hydrous, 99%, flake, bgs., c.l., works ton 60.00 - —
bgs., l.c.l., works ton 75.00 -100.00
Magnesium gluconate 100-lb dm. f.o.b works, E lb 1.42 - —
Magnesium hydroxide, NF powd., dms., 500-lbs. or more, f.o.b. works lb. .24½- .25½
Magnesium lauryl sulfate, dms., c.l., frt. alld lb. .22½- —
dms., l.t.l., frt alld. ..... lb. .23½- —
tanks, frt alld. ..... lb. .21½- —
Magnesium metal, 99.8%, ingots, 10,000-lb lots or more, works lb .36 - —
Magnesium metal, 98.8%, pigs, 10,000-lb. lots or more, works lb. .35¼- —
sticks, cs., works, frt. alld on carlots lb. .59 - —
Magnesium nitrate, cryst., dms., works lb. .29 - —
Magnesium oxide (see Magnesia calcined).
Magnesium phosphate tribasic, NF, bbls lb. .75 - —
Magnesium silicate (see Talc)
Magnesium silicofluoride, dms., works lb .10½- .12
Magnesium sulfate, tech., bgs., c.l., works 100 lbs. 2.15 - —
bgs, l.c.l., works 100 lbs. 2.90 - 3.15
USP, cryst., bgs. c.l., works, 100 lbs. 2.35 - —
bgs. l.c.l. 5,000 lbs., 1 withdrawal 100 lbs. 3.10 - —
bgs., smaller lots 100 lbs. 3.35 - —
Magnesium trisilicate, USP, fib. dms., 5,000-lb. lots lb. .38 - —
fib. dms., 1,000-lb. lots ..... lb. .40 - —
fib. dms., 100-lb lots ..... lb. .45 - —
Bulky and super grades of magnesium trisilicate 7c per lb. higher.
Malachite green, straight, PTA, bbls., works lb. 5.30 - —
Malathion, dms., c.l., works lb. .89 - —
dms., l.c.l., works lb. .92 1.01
Maleic acid, cryst., powd. dms lb. .37¼- —
Maleic anhydride dms. c.l., frt. equald lb. .24 — —
dms., l.c.l., frt. equald lb. .25½- —
tanks, frt equald lb .22½- —
Maleic anhydride in bags ½c. per lb. less.
Malic acid, tech., dms lb. .50 —
Mandelic acid NF dms., 1,000-lb. lots lb. 2.35 —
dms. smaller lots ..... lb 2.40 2.50
Mandrake root, bls. ..... lb. .45 - —
Manganese acetate, dms., dlvd lb. .35 - —
Manganese borate, tech., fib. dms. lb. .23½- —
Manganese carbonate, chemical grade, 46% Mn, bgs., 20,000-lb lots and more, works lb. .11 - .16
Manganese chloride, CP, anhyd., dms., 20,000-lb lots, works lb. .21¾- —
smaller lots, works lb. .23½- —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, burlap paper lined bgs., gross for net works ton 148.00 - —
40,000 to 99,999-lb lots, paper bgs., same basis ton 144.50 - —
40,000 to 99,999-lb. lots, dms. same basis ton 152.50 - —
Prices for manganese dioxide in 10,000 to 40,000-lb lots, $3 per ton higher.
Manganese gluconate, dms lb. 1.84 - —
Manganese hydrate, dms., dlvd lb. .35 - —
Manganese hypophosphite, NF dms. lb. 3.52 - —
Manganese linoleate liq. 4.35% Mn, dms lb. .35¾- —
Solid, precip., 8.2% Mn bbls lb. 41¼ —
Manganese metal, electrolytic, dms., c.l., dlvd, E lb. .34½- —
dms., ton lots, dlvd E lb. .37 - —
dms., smaller lots, dlvd E lb. .39 - —
Manganese naphthenate liq., 6% Mn, dms., frt alld lb .29¾- —
Manganese resinate fused, 3½% Mn dms lb 29¼- —
Precip., 6½-7% Mn, dms. lb. .42 - —
Manganese sulfate, fertilizer grade, 65% $MnSO_4$, bgs., c.l., dlvd S. E ton 86.50 - —
bgs, t.c.l., dlvd S., E ton 93.50 - —
Manganese tallate 6%, dms lb .26½- —
Manila copal gum, C, bgs ..... lb. .35 - .39
DBB, bgs. ..... lb. .24½- 28
DK, dust, bgs. ..... lb. .14 Nom.
MA, soft, bgs. ..... lb .20 24
WS, bgs ..... lb. No stocks.
Mannitol com'l fib dms., ton lots, works lb. .60 - —
fib. dms. to ton lots, works lb. .62 - —
fib. dms., single dm., works lb. .65 - —
Marine pitch, dms lb. .04¼- .05
MBTS (see Mercaptobenzothiazyl disulfide).
MBT (see 2-Mercaptobenzothiazole).
Melamine, bgs., c.l., works ..... lb. .26½- —
bgs., l.c.l., works ..... lb. .28 - —
Menadione, USP bots. ..... gram. .044 - .05
Menhaden oil, crude, tanks, works, Atl. & Gulf ports lb. .06¾- .07
Menthol, nat. USP, Brazilian large crystals, cs lb. 8.10 - —
Nat., USP, Brazilian, regular crystals, cs lb. 8.00 - —
Japanese cs. lb. 10.50 -12.00
Syn., USP, racemic, 25-lb. lots lb. 4.25 - —
2-Mercaptobenzothiazole, bgs., fib. dms., ton lots, works, frt. alld lb. .44 - —
bgs. fib. dms., less ton tots, same basis lb. .46 - —

Mercaptobenzothiazyl disulfide, bgs., fib. dms., ton lots, works, frt. alld lb. .54 - —
bgs., fib. dms., less ton lots, same basis lb. .56 - —
Mercuric chloride, NF, cryst., dms., 100 lbs., f.o.b works lb. 4.03 - —
USP, gran. or powd., 50-lb. dm., 100 lbs., f.o.b. works lb. 3.78 - —
Mercuric cyanide, NF VIII, powd., fib. dms lb. 5.84 - —
Mercuric iodide, red, NF, 100-lb. dm., f.o.b. works lb. 6.97 - —
Mercuric oxide, red, NF IX 50-lb. dm., 100 lbs. f.o.b. works. lb. 4.72 - —
tech., 50-lb. dm., 100 lbs., same basis lb. 4.52 - —
yellow, NF, 50-lb. dm., 100 lbs., same basis. lb. 4.89 - —
tech., dms., 100 lbs lb 4.35 - —
25-lb. fib dm. ..... lb. 4.38 - —
Mercurous chloride (see Calomel).
Mercurous iodide, yellow, NF, 100-lb. dm. f.o.b works lb. 8.22 - —
Mercury, ammoniated (see White precipitate USP XV).
Mercury metal 76 lbs. per flask, net-flask 200.00 -202.00
Mesityl oxide, dms., c.l., dlvd lb. .15 —
dms., l.c.l., dlvd. ..... lb. .16½- —
tanks, dlvd ..... lh .12½- —
Meta-aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline).
Metanilic acid dms. works lb .57 .75
Metanitroparatoluidine (see m-Nitro-toluidine).
Metanitroaniline (see m-Nitroaniline)
Metaphenylenediamine (see m-Phenylenediamine).
Metatoluidine (see m-Toluidine)
Metatolylenediamine (see 2,4-Tolylenediamine).
Methacrylic acid glacial 98%, dms., truckloads frt equald lb. .42½- —
dms. smaller lots, frt equald. lb. .43 - .75
tanks, works, frt. equald lb. .40 - —

Methanol, nat, denaturing grade, tanks, frt. alld gal. .33 - —
Syn., zone 1, dms., c.l., or t.l. min., dlvd gal. .51½- —
dms., l.c.l., dlvd. ..... gal. .51½- —
tankwagon, 2,000-4,000 gal. lots, dlvd. Metropolitan area gal. .35 - —
tankwagon, 4,000 gal. min., dlvd gal. .30 - —
tankwagon, 4,000 gal. min., f.o.b. terminal gal. .29 - —
Methanol, syn., zone 2, dms., c.l., or t.l., min. frt. alld. or dlvd. gal. .55½- —
dms., t.c.l., works ..... gal. .65½- —
tankwagon, 2,000-4,000 gal. lots, min., dlvd. Metropolitan area gal. .39 - —
tanks, 4,000 gal. min., dlvd. gal. .34 - —
Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of US west of above state boundaries comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
Methapyrilene fumarate, 100-999 lbs., dms., f.o.b. works, frt. equald lb. 21.75 - —
Methapyrilene hydrochloride, 100-999 lbs., dms., f.o.b. works, frt. equald lb. 27.25 - —
Methenamine (see Hexamethylene-tetramine).

Methionine hydroxyanalogue, (calcium salt) 90% min., dms., t.l., frt alld ... lb 1.10 - —
dms., l.t.l., same basis ..... lb 1.16 - —
dl-Methionine, fib. dms., frt. alld., 50-lb or more lb 3.50 - —
Feed grade, 98% fib dms, same basis lb 1.43 - —
Methoxychlor 50% wettable powder, dealers, dms. cs lb. .66 - —
Methyl abietate, non-ret dms., c.l., dlvd zone 1 lb. .21½- —
non-ret dms., t.c.l., same basis lb. .22 .22½
Methyl abietate, hydrogenated, non-ret dms., c.l., dlvd zone 1 lb. .23½- —
non-ret dms. t.c.l., same basis, lb 24 .24½
Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich., Ind., Ill. Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala., Ga., Fla., S. C. and Tenn.
Methyl acetone, nat. dms., t.c.l., E of Miss frt alld gal 62½- —
Syn., dms., c.l., frt. alld. E. gal. .66 - —
dms., t.c.l., frt. alld. E..... gal. .76 - —
tanks frt alld E. gal .51 —
Synthetic methyl acetone E territory comprises all states East of and including Colo., Mont. N Mex. and Wyo. West territory is made up of all states west of those four.
Methyl acrylate, dms., c.l., t.l., dlvd. lb. .35¼- —
dms., t.t.l., dlvd..... lb. .36¼- —
tanks, dlvd. ..... lb. .32¼- —


WHAT'S NEWS IN ENJAY TECHNICAL SERVICE




Fine vinyl finish at 10-18% less cost

Here is another example of Enjay customer service. Enjay has solved an important surface coating solvent problem by experimenting with various blends of methyl ethyl ketone with methyl isobutyl ketone for vinyl surface coatings. With a 50/50 blend of these Enjay solvents—users can obtain excellent surface hardness, gloss, and finish at a saving in cost per pound of solids dissolved, relative to 100% MIBK, of 10-18%. This is one more example of how Enjay is helping its customers turn out quality products at a saving.

Enjay is a convenient source of basic chemical raw materials for most industrial and chemical needs. Enjay will supply tank cars of MEK, MIBK or will split tank cars for your convenience. Contact Enjay at 15 West 51st St., N.Y. 19, N.Y.

EXCITING NEW PRODUCTS THROUGH PETRO-CHEMISTRY

ENJAY CHEMICAL COMPANY

A DIVISION OF HUMBLE OIL & REFINING COMPANY

ENJAY PETROCHEMICALS

Methyl alcohol (see Methanol).
Methyl amyl acetate, dms., c.l., dlvd. E lb. .17 - —
dms., t.c.l., dlvd E. lb. .18½- —
tanks, dlvd E. lb 14½- —
Methyl amyl alcohol, dms., c.l., dlvd. lb 17 —
dms., t.c.l., dlvd. lb 18½ —
tanks dlvd lb 14½- —
Methyl amyl ketone, dms., c.l., t.l., f.o.b. works lb. 1.99¼- —
dms., t.c.l., same basis lb. 2.00 —
N-Methylaniline, tech., tanks, frt. alld lb 60 —
Methylanthranilate, cns. lb 2.25 2.45
Methyl benzoate, cns, dms lb 60 .75
Methyl bromide, service organization prices, 40 to 375-lb. cyls., large lots, frt. alld lb. .62 .72
on 100 lbs lb. 73 .79
Methyl cellulose, special vis., (1,500-4,000 cps.) 50-lb bgs., c.l., works lb. 82 —
50-lb bgs. 2,000-lb lots and more, same basis lb 89 - —
50-lb bgs. smaller lots, frt. alld on 100 lbs lb 1 05 —
Methyl cellulose, standard vis (25-400 cps.) 50-lb bgs., c.l., frt alld lb. .69 - —
50-lb bgs. 2,000-lb lots and more, same basis lb 76 - —
50-lb bgs., smaller lots, frt. alld.
Methyl chloride (indust. cyls., frt. equald lb 22¼ - —
tanks, multi-unit, same basis, lb .16¼ —
tanks, single unit, same basis, lb 12¾ —
Methyl chloride, refrigerator mfrs., cyls., dlvd lb. 48¾ - —
Other consumers of service indl. cyls. dlvd lb 67¾ —
Methyl chloroform (see 1,1,1-Trichloroethane)
Methyl cinnamate, cns lb 1.55 1.80
Methyl ethyl ketone, dms., c.l., dlvd lb .15 —
dms., t.c.l., dlvd lb 16½- —
tanks, dlvd lb 12½- —
2-Methyl-5-ethyl pyridine, dms., c.l., works lb 45 —
dms., t.c.l., works lb 45¾- —
tanks, works lb 43 —
Methyl formate, refd., dms lb .35 .40
Tech. non-ref. dms., any quantity works lb 10 - —
tanks, works lb 07 - —
a-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works lb. .26 - —
100-lb multiwall paper bgs., t.l., min 23,000 lbs. works. lb. .27 - —
100-lb multiwall paper bgs., t.t.l., works lb. 28 - —
Methyl heptin carbonate, bots lb.27.25 29.00
Methyl p-hydroxybenzoate (lb dms lb 1.90 2.00
Methyl ionone standard, cns dms lb 3.40 3.85
Methyl isoamyl ketone, dms., c.l., dlvd lb. 20 —
dms., t.c.l., dlvd. lb. 20½- —
tanks, dlvd lb. 17½- —
Methyl isobutenyl carbinol (see Methyl amyl alcohol)
Methyl isobutyl ketone, dms., c.l., dlvd lb 17 —
dms., t.c.l., dlvd lb 18½ —
tanks, dlvd lb 14½- —
Methyl methacrylate, dms., c.l., t.l., frt equald. with Belle, W Va lb. .31 - —
dms., smaller lots, same basis lb. 31¼- —
tanks, same basis lb 29 —
Methyl naphthyl ketone, cryst., cns lb 2.45 4.30
Methyl parahydroxybenzoate (see p-Hydroxybenzoate)
Methyl parathion, tech., 80% dms., frt alld E lb 84 - —
Methyl parathion prices 2c per lb higher in West
Methyl roseaniline chloride, NF., 5-lb fib dms lb 6.90 - —
Methyl salicylate, dms., t.l., frt alld lb 60¼ —
dms., t.c.l. same basis lb 62½ 67½
Methyl testosterone, USP, 100-gram bots gram No Prices
2-Methyl-5-vinyl pyridine, 40-dm lots or more, f.o.b works lb 1 32 - —
5-39 dm lots, same basis lb 1.37 - —
tanks, same basis lb 1.27 - —
Methyl violet toner, molybdated, PMA bbls., dlvd E of Rockies lb 2.95 - —
Tungstated, PTMA bbls., same basis lb 4.35 —
Methyl violet prices 1c higher W of Rockies
Methylene blue, fib, dms, 100-lb lots, frt. adjusted lb 4.67 —
Methylene chloride tech, straight or assorted dms c.l. or t.l., dlvd lb .12½- —
dms, t.c.l. t.t.l. dlvd lb 15¾ —
tanks, 4,000-gal. min., dlvd lb .11¼- —
b-Methylnaphthalene, 32°C., m.p., dms, works lb 90 —
Methylpentanediol (see Hexylene glycol)
Methylphenylpyrazolone (see 1-phenyl-3-methyl-pyrazolone-5)
Methylthionine chloride (see Methylene blue)
Mica, dry-grd, paint, plastic, 100 mesh, bgs, c.l., works lb 04 —
roofing, 20 to 80 mesh works lb 03 —
Mica, wet-grd., biotite, bgs., c.l., works frt alld E lb 06¼ —
bgs t.c.l. ex-whse lb. 07¼- —
paint or lacq., bgs., c.l., 325 mesh works, frt alld E. lb. 08¼- —
bgs. t.c.l. ex-whse or freight alld E lb 09 —
Mica, wet-grd., rubber, bgs., c.l., works, frt. alld E lb 08 —
bgs. t.c.l. ex-whse. or frt. alld. E lb 08¾ —
wallpaper bgs. c.l. works, frt. alld.E lb 08¾ —
bgs. ex-whse or frt alld E. lb 09 —
white, 5-10 microns, bgs., c.l., works frt alld E lb 08¼ —
Mica, wet-grd W of Miss ¼c higher; W. of Rockies 1c higher
Microcrystalline wax, petroleum, coating grades, tankcars, works lb. .10 .11
laminating grades, tankcars, works lb 11 12
Mineral black, bgs, works lb 0160 .0673
Mineral oil, white, tech, 50-65 vis., non-ref. dms. c.l. f.o.b. refy gal. .70 - —
non-ref. dms., t.c.l., same basis gal. .75 - —
tankcars, refy. gal. .54 - —
65-75 vis., non-ref. dms., c.l., same basis gal. .70½- —
non-ref. dms., t.c.l. same basis gal. .75½- —
tankcars, refy. gal. .54½- —
Mineral oil, white, NF, 80-90% vis., non-ref. dms., c.l., same basis gal. .71 - —
non-ref. dms., t.c.l., same basis gal. .76 - —
tankcars, refy. gal. .55 - —
135-138 vis., non-ref. dms., c.l., same basis gal. .77 - —
non-ref. dms., t.c.l., same basis gal. .82 - —
tankcars, refy. gal. .61 - —
145-155 vis., non-ref. dms., c.l., same basis gal. .83 - —
non-ref. dms., t.c.l., same basis gal. .88 - —
tankcars, refy. gal. .67 - —
USP, 180-190 vis., non-ref. dms., c.l., same basis gal. .85 - —
non-ref. dms., t.c.l., same basis. gal. .90 - —
tankcars, same basis gal. .69 - —
200-210 vis., non-ref. dms., c.l., f.o.b. refy gal. .875 - .90
non-ref. dms., t.c.l., same basis gal. .925 - —
tankcars, refy. gal. .69 - .715
340-350 vis., non-ref. dms., c.l., f.o.b. refy gal. .92½- —
non-ref. dms., t.c.l. gal. .97½- —
tankcars, refy. gal. .76½- —
(For dlvd. N.Y. prices add 2c. for c.l. and 3c. for t.c.l.).
Mineral orange, American, bbls., c.l., works lb. .16 - —
bbls., t.c.l., same basis lb. .17 - —
Mineral spirits, petroleum, odorless, tankcars, New Jersey gal. 29 - —
New York gal. 305 —
Houston, Texas gal. 25 —
regular, tankcars, New Jersey and New York gal. 18 —
Group 3 gal. .12875- —
Houston, Texas gal. 145 —
Mineral spirits, 140 F. flash, New York, New Jersey at terminal gal. 205 - —
Houston, Texas gal. 17 - —
Mink oil, dms lb 2.75 - —
Mirbane oil (see Nitrobenzene).
MNPT maroon toner, kgs., c.l., works lb 6.30 - —
Molasses, blackstrap, feed grade, tanks, New Orleans gal. .14 - .14½
tanks, New York gal. .15½- .16
Molybdated orange, bbls. lb .49 —
Molybdenum metal, powd., 80 or 200 mesh, ctns., works kilo 7.84 - —
325 mesh, ctns., works kilo 9.13 - —
Molybdenum trioxide, purif., dms., works lb 1.15 - —
Tech. chemical dms., works, basis Mo content lb 1.48 —
Tech., metallurgical, dms., works, basis Mo content lb 1.47 —
Molybdic acid, 84%, dms., works, lb 1.03 1.15
Monoallylamine, dms., c.l., dlvd lb 965 —
dms., c.l., dlvd. lb 995 —
tanks, dlvd lb 96 —
Monobutylamine, dms., c.l., dlvd E. of Rockies lb. .57½- —
dms., t.c.l., same basis lb .59 - —
tanks, same basis lb. 55 - —
Mono-tert-butyl-m-cresol, dms., c.l., works lb 55 - —
dms., t.c.l., works lb 56 - —
tanks, works lb 54 - —
Monochloracetic acid, purif. (see Chloroacetic acid, mono).
Monochlorobenzene, dms., c.l., frt. alld or dlvd. E lb. .10½- —
dms., t.c.l., same basis lb. 11½- —
tanks, same basis lb. 08¾- —
Monochlorobenzene prices in the West 1¾c. higher.
Monoethanolamine, dms, c.l., dlvd. E lb. 27½- —
dms., t.c.l., same basis lb. 29 - —
tanks, same basis lb. 25 - —
Monoethylalphanaphthylamine (see n-Ethyl-a-naphthylamine).
Monoethylamine, 70% aqueous, solution, dms., c.l., dlvd. E. 100% basis lb. .38½- —
dms., t.c.l., dlvd E. 100% basis, lb. 40 - —
tanks, dlvd. E. 100% basis lb 35 - —
Monoethylaniline (see N-Ethylaniline)
Monoethylorthotoluidine (see N-Ethyl-o-toluidine)
Monoisopropanolamine, dms., c.l., dlvd. E lb 27½- —
dms., t.c.l., same basis lb. 29 - —
tanks, same basis lb. 25 - —
Monoisopropylamine, anhyd., dms., c.l., dlvd lb. .33½- —
dms., t.c.l. same basis lb. .35 - —
tanks, same basis lb. 31 - —
Monomethylamine, anhyd., cyls., t.c.l., frt equald., 100% basis lb. 30 - —
tanks, 100% basis lb. 26 - —
30-35% soln., dms., c.l., frt. equald. 100% basis lb .36 —
Monomethylamine, 30-35% soln., dms., t.c.l., frt equald, 100% basis lb. .36½ —
tanks, frt. equald. 100% basis, lb. .26 —
40% soln. dms. frt equald., 100% basis lb. .33 —
dms., t.c.l. frt equald. 100% basis lb. 33½ —
tanks, frt equald. 100% basis, lb .26 —
Monopentaerythritol, tech., bgs., c.l., dlvd. E lb. .31 - —
bgs., t.c.l., dlvd. E lb. 32 - —
Monopotassium glutamate, dms., 1,000-lb lots, frt alld lb 3.05 - —
dms 100-lb lots same basis lb 3.25 - —
Monosodium glutamate, dms, dlvd, lb. 1.07 1.15
Monosodium phosphate (see sodium phosphate, monobasic)
Montan wax, Calif. refd., bgs lb .27 .28
Imp., crude, Bohemian, bgs lb. .25 - .26
German, bgs lb .25 .26
Morphine, cns. 100-oz. f.o.b. works oz 12.35 - —
Morphine hydrobromide, cns., 100-oz., f.o.b works oz 9.90 - —
Morphine hydrochloride, NF, cns., 100-oz., f.o.b works oz 9.90 - —
Morphine sulfate, USP, cns., 100-oz., f.o.b works oz 9.90 - —
Morpholine, dms., c.l., dlvd. E lb 55¼- —
dms., t.c.l., dlvd. E lb. .56¾- —
tanks, dlvd E lb. 52¾- —
Muriatic acid (see Hydrochloric acid).
Musk, syn. ambrette, fib dms., 100-lb lots lb 4.40 4.90
cns., 25-lb lots lb 4.50 5.00
Ketone, fib dms., 100-lb lots lb 4.60 5.10
cns. 25-lb lots lb 4.70 5.20
Xylol, fib dms., 100-lb lots lb 1.26 —
cns. 25-lb lots lb 1.40 —
Mustard seed, Danish yellow, bgs. lb. .10 - —
Montana, yellow, bgs lb 10½- —
Oriental, bgs. lb .09 —
Mustard oil, syn. bots lb. 1.60 1.85
Myristic acid, bgs. lb. .23¼- .25¼
tanks lb. .22¼- —
Myrrh gum, cs. lb. .65 - .75

## N

Naphtha, high solvency (see Solvent naphtha, petroleum).
Naphtha, petroleum, cleaner's (see Cleaner's naphtha).
Naphtha, VM&P, petroleum, tankcars, New Jersey and New York gal. .19 - —
Group 3 gal. .13875- —
Houston, Texas gal. .155 —
Naphthalene, crude, dom., 78°, tanks, frt. equald lb. .06¼- .06½
Refd., indust., chipped, crushed, bgs., frt. equald lb. .14½- —
tanks, same basis lb. .11¾- —
Naphthalene, refd., indust., balls, flakes, wholesalers, jobbers bbls., c.l., same basis. lb. .15½- —
cs. 50 lbs. c.l. same basis. lb. .15¾- —
1-lb pkgs. c.l. same basis. lb. .18½- —
a-Naphthol, dms. frt. alld lb 1.03 —
b-Naphthol, tech. flake bbls., c.l., works lb. .34 - —
bbls. t.c.l. works lb 36 - —
Naphthol, ITR red toner, bbls., works lb 5.00 - —
1-Naphthol-3,6-disulfonic 8-amino acid (see H acid)
1-Naphthol-4 sulfonic acid (see Nevile and Winther's acid)
1-Naphthol-5-sulfonic acid (see L acid)
1-Naphthol-5-sulfonic 8-amino acid (see S acid)
2-Naphthol-6,8-disulfonic acid (see Gamma acid).
Naphthol sulfonic mixed acid (see Cleve's acid)
a-Naphthylamine, dms, frt. alld lb. 52 - —
b-Naphthylamine, tech, flake bbls., works lb 1.60 - —
1-Naphthylamine-5-sulfonic acid (see Laurent's acid)
2-Naphthylamine-4,8-disulfonic acid (see Cassella acid).
2-Naphthylamine-1-sulfonic acid (see Tobias acid)
2-Naphthylamine-6-sulfonic acid (see Broenner's acid)
2-Naphthylamine-7-sulfonic acid (see F acid)
Naringin, fib dms lb. 8.50 —
Neatsfoot oil, 15° cold test, dms lb. .29 Nom.
20° cold test, dms. lb. .28 Nom.
30° cold test, dms. lb. .27 Nom.
Neocinchophen, USP, dms., frt. adjusted lb 7.00 8.00
Neomycin sulfate, fib dms, 1-kilo basis activity gram. .25 —
fib dms, 100-999-gram lots, basis activity gram .30 —
Tech, fib dms gram 13½- —
Neopentylglycol, dms., c.l., dlvd lb 32 —
dms, t.c.l. same basis lb 33 —
Nerol, dms lb 4.75 —
Neroli oil, NF, French, bots lb 425.00 575.00
Tunisian, bots lb 400.00 —
Nerolin, cns lb 2.45 2.85
Neville and Winther's acid, dms., frt., alld lb. 1.50 - —
Niacinamide (see Nicotinamide)
Nickel acetate, bbls, dlvd lb. .68½ 75½
Nickel carbonate, bbls, dlvd lb 78¼ .85¼
Nickel chloride, bbls, dlvd lb .37 45
Nickel formate, bbls, ton lots, frt. alld lb 72 73
Nickel metal, electro cathodes, cs., works lb 74 —
Nickel nitrate, dms, frt. alld lb .31½- .33½
Nickel oxide, black, bbls. lb .85 —
Green, bbls lb .84 —
Nickel sulfate, bgs., c.l., dlvd lb. .28 —
bgs., t.c.l., dlvd lb. 28½- 36
Nicotinamide, USP, 50-kilo, dms., 100 kilos., dlvd kilo. 5.75 6.50
dms, less than 100 kilos, dlvd. kilo. 6.25 7.00
Nicotinamide hydrochloride, 50-kilo dms., dlvd kilo. 6.50 7.50
Nicotine sulfate, 40%, dealers, 50-lb. dms frt alld lb 1.20 —
40% manufacturers, 500-lb. dms., frt. alld lb 1.05 - —
Nicotinic amide, USP (see Nicotinamide)
Niger seed, bgs. lb 10¼- —
Nikethamide, cbys. lb 5.00 —
Nitric acid, 38° Be., cbys., t.l., works E 100 lbs. 5.75 —
cbys., t.c.l., works E 100 lbs 6.05 6.85
38° Be., cbys, c.l., works E 100 lbs 6.25 —
cbys., t.c.l., works E 100 lbs 6.55 7.35
40° Be., cbys., c.l., works E 100 lbs. 6.75 - —
cbys., t.c.l., works E 100 lbs 7.05 7.85
42° Be., cbys. c.l. works E. 100 lbs 7.25 —
cbys., t.c.l., works E 100 lbs 7.55 8.35
58.5 to 68% $HNO_3$, tanks, works, 100% basis 100 lbs. 3.90 —
94½ to 95½% $HNO_3$, tanks, works, 100% basis 100 lbs 4.90 —
Nitric acid CP, NF consumer, cbys., extra, c.l., works lb. .18½- —
cbys. extra t.c.l. works lb. .20 —
5-pint bots. extra, cs. c.l., same basis lb. 22½- —
5-pint bots. extra, cs., t.c.l., same basis lb. .24 .25
dms. frt alld lb. .99 —
4-Nitro-2-aminophenol, tech., paste, dms., t.c.l., works lb. .64 - —
m-Nitroaniline, cryst., dms., frt. alld lb 1.15 - —
Paste, dms. frt. alld., 100% basis 1.10 - —
o-Nitroaniline, flaked, dms, t.l., frt. alld lb. 49 - —
dms, t.t.l. frt alld lb 51 - —
o-Nitroaniline orange toner, kgs. lb 1.50 - —
p-Nitroaniline, c.l., t.l., dms., 20,000 lb min., dlvd lb. .44½- —
dms, t.c.l., same basis lb. .46½- —
o-Nitroanisole, tech, tanks, frt alld. lb. .36 - —
p-Nitroanisole, tech, solid, dms., frt alld lb. .72 - —
Nitrobenzene, dbl dist., dms., c.l., frt alld lb. .13 —
dms., t.c.l., frt. alld. lb. .14 - —
tanks, frt. alld lb. .12 - —
p-Nitrobenzoic acid, dms., c.l., works lb. .63 - —
Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175 seconds, bbls., c.l., works lb. .37½- —
bbls., t.c.l., same basis lb. .33½- 40¼
18-20, cps., bbls., c.l., same basis lb. .39½ —
bbls., t.c.l., same basis lb. .40½- 42½
250-400, 600-1,000 seconds, bbls., t.c.l. same basis lb. 43 46
Nitrocellulose, spirit soluble, 30-35 cps, ¼ ½ seconds, bbls., c.l. same basis lb. 43 —
bbls., t.c.l., same basis lb 44 46
5-6 cps., 40-60 seconds, bbls., c.l., same basis lb. 42 —
bbls. t.c.l., same basis lb 43 45
Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable.

o-Nitrochlorobenzene, dms., c.l., frt. alld lb. .15 - —
dms., t.c.l., same basis lb. .16 - —
tanks, same basis lb. .13 - —
p-Nitrochlorobenzene, dms. lb. .26 - .27
2-Nitro-p-cresol, tech., dms., dlvd lb. .68 —
Nitroethane, dms., c.l., dlvd. E. lb. .28½- —
dms., t.c.l., dlvd. E lb. .30 - —
tanks, dlvd E lb. .26 - —
Nitroethane prices West of Rockies are 1c. higher
Nitrogen solutions, direct application, tanks, f.o.b. works, unit-ton. 1.64 - —
Manufacturing type, same basis, unit-ton. 1.32 - —
Nitrogen tetroxide, indust., tankcars, f.o.b Hopewell, Va lb. .065 - —
Cyls., t.l., min 5 tons, same basis lb. .07½- —
Cyls., t.c.l., t.t.l. same basis lb. .15 - —
Nitrogenous process tankage, bulk, works unit-ton. 4.50 5.00
Nitrogenous sewage sludge, bulk, f.o.b Chicago works, unit-ton. 3.50 —
(The foregoing price is per unit $NH_3$, plus 50c. per unit a.p.a., bulk, f.o.b producers works, Chicago.)
Nitromethane, dms., t.l., dlvd. E. lb. .26 - —
dms., t.t.l., dlvd. E lb. .27½- —
Nitromethane prices West of Rockies are 1c higher
a-Nitronaphthalene, bbls., frt. alld. lb. .31 - —
o-Nitrophenol, dms., works, frt. equald lb. .94 - —
p-Nitrophenol, dms. c.l., frt. alld. lb. .45 - —
dms., t.c.l. frt alld lb. .47 - —
1-Nitropropane, dms, c.l., frt. alld. E. of Rockies lb. .28½- —
dms., t.c.l., same basis lb. .30 - —
tanks, same basis lb. .26 - —
1-Nitropropane prices West of Rockies are 1c. per lb higher
2-Nitropropane, dms. c.l., frt. alld. E of Rockies lb. .18½- —
dms., t.c.l. same basis lb. .20 - —
tanks, same basis lb. .16 - —
m-Nitrotoluene, tech, dms, frt. alld, lb. .50 - —
o-Nitrotoluene, dms, c.l., frt. alld lb. .15 - —
dms, t.c.l., frt alld. lb. .16 - —
tanks, frt. alld lb. .13 - —
p-Nitrotoluene, tech., cast, dms., c.l., works lb. .27½- —
dms, t.c.l. works lb. .28 - —
flake, dms., c.l., t.l., works lb. .27½- —
dms, t.c.l. works lb. .28 - —
m-Nitro-p-toluidine, dms. lb. 1.25 —
Nonylphenol, dms. c.l. frt. alld. lb. .22½- —
dms., t.c.l. frt. alld lb. .23¼- —
tanks, frt. alld lb. .20 —
Nonylphenol prices on shipments to Western States are 2c. higher.
Noscapine, cns. oz. 8.00 - —
Nutmegs, East Indian, whole, bgs. lb. 1.18 - —
West Indian, bgs lb. 1.20 - —
Nutmeg oil, USP, dist., East Indian, cns lb 9.00 12.00
West Indian, cns. lb 9.00 12.00
Nux vomica, bls. lb. .20 —
Powd., bbls, bxs. lb. .20 .22

## O

Ocher (see Iron oxide, yellow, nat.).
Ocotea cymbarum oil, dms. lb. .45 - .47
Octane, indust., tanks, Bayonne, N.J gal. .20 —
1-Octanol, tech., dms, c.l., dlvd., Zone 1 lb. .43½- —
dms., t.c.l., dlvd. Zone 1 lb. .45½- —
tanks, dlvd., Zone 1 lb. 41 —
Octyl alcohol, perfumers grade, bots. lb. 1.60 3.25
Octyl alcohol, tech, (see 1-Octanol, tech).
tert-Octylamine, dms., c.l., t.l., f.o.b. works lb .54½- —
dms, t.c.l. same basis lb 55 —
Octylphenol, bgs., c.l., works lb. .22½- —
bgs., t.c.l., works lb. .23 —
tanks, works lb .21½- —
Octylphenol in dms., 11c. higher.

### OILS

**Oil quotations are listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.**

Oiticica oil, liq., dms lb. .14 - .14¼
tanks lb. .14¼- —
Oleic acid, dbl.-dist. (white), dms. lb. .19¾- .22¼
tanks lb. .17¼- —
S. D., dms lb. .18¾- .21¼
tanks lb. .16¼- —
Oleum (see Sulfuric acid, fuming).
Olibanum gum, siftings, cs lb. .15 .20
Tears, cs lb 22 .30
Olibanum oil, bots lb. 5.00 7.65
Extra fine, bots lb 8.00 9.50
Olive oil, edible, dms., spot, duty-paid gal. 2.35 - 2.40
Olivine, crude, works ton.12.00 —
20 mesh, works ton 15.00 - —
100 mesh works ton.20.00 - —
Opium, USP, cns., 25-lbs., f.o.b. works oz.19.20 - —
gran., cns., 50 lbs. same basis. oz.21.65 - —
powd. cns. 50 lbs. same basis. oz.21.65 —
Orange oil, expressed, USP, Calif., cns., dms lb 70 90
Calif., sweet, cns, dms lb. 60 —
Florida, cns., dms lb .0 45
Messina, cns. lb. 3.25 5.00
West Indian, bitter, cns., dms lb. 2.50 - 3.50
Orange peel, bitter, Haitian, bls lb 18 20
Sweet lb 28 30

### ORANGE PIGMENTS

**Orange pigment quotations are listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.**

Origanum oil, Spanish, cns lb 1.80 2.30
Orris root, Florentine, bls lb .55 —
powd., bbls, bxs lb .65 —
Verona, bls lb .35 —
powd, bbls bxs lb .45 —
Orthoanisidine (see o-Anisidine).
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde)
Orthochloroaniline (see o-Chloroaniline)
Orthochlorobenzoic acid (see o-Chlorobenzoic acid)
Orthochloroparanitroaniline (see 3-Chloro-4-nitroaniline)
Orthochlorophenol (see o-Chlorophenol).
Orthocresol (see o-Cresol)
Orthocresotinic acid (see 2,3-Creosotic acid).
Orthodichlorobenzene (see o-Dichlorobenzene)
Orthonitroaniline (see o-Nitroaniline)
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).

Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol).
Orthonitrophenol (see o-Nitrophenol).
Orthonitrotoluene (see o-Nitrotoluene).
Orthophenetidine (see o-Phenetidine).
Orthophenylphenol (see o-Phenyl phenol).
Ortho-tertiary amylphenol (see o-tert-Amylphenol)
Orthotolidine (see o-Tolidine base).
Orthotoluidine (see o-Toluidine).
Ouabain, USP, bots. ..... gram. 3.00 4.00
Ouricury wax, crude, bgs. ..... lb. .50 Nom.
Refd., pure, bgs. ..... lb. .54 - .55
Oxalic acid, bgs., c.l., works lb. .18 - —
bgs., 10,000-lb. lots, works .. lb. .19 - —
bgs., smaller lots, works ..... lb. .20½- —
Oxalic acid in drums is priced ½c. per lb. higher.
b-Oxynaphthoic acid, pigment manufacture, dms., frt. alld lb. .912 - —
Dyestuff manufacture, dms., same basis lb. 1.03 1.14
Oxyquinolin sulfate, cns., 100-lb. lots, works lb 4.75 5.00
cns., smaller lots, works .... lb. 4.92 5.17

## P

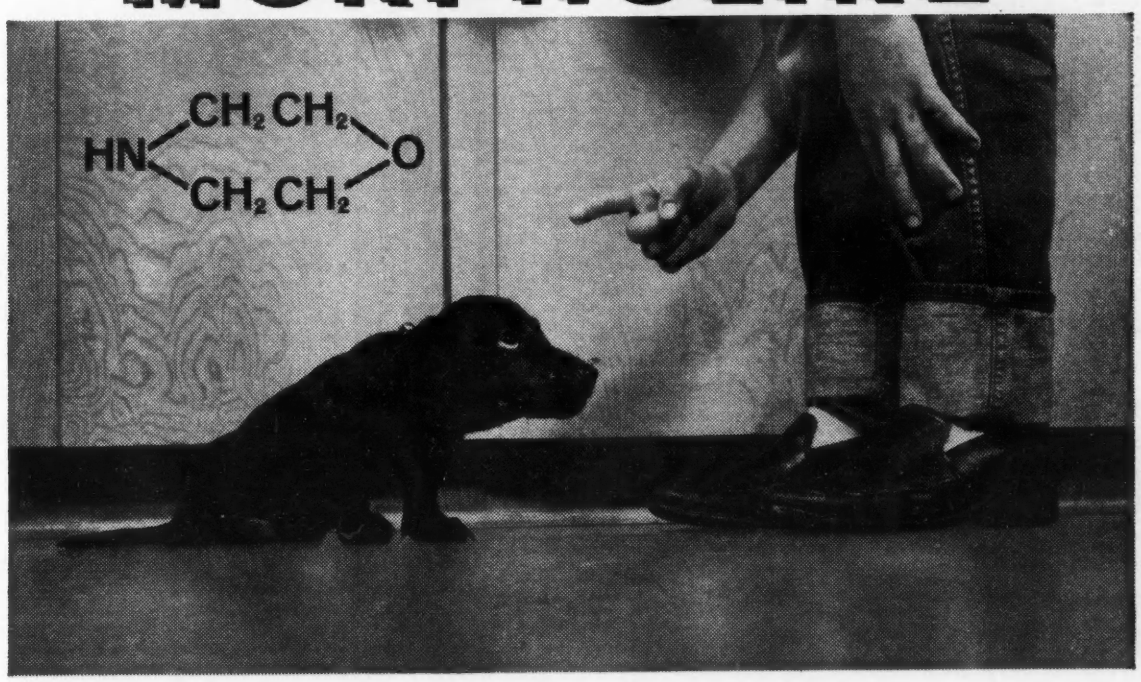
Palm oil, clarif., dms ..... lb. .14¾- .15¾
tanks ..... lb. .12 - —
Palm oil acid, double dist. dms. lb. .16 - .18½
tanks ..... lb. .13½- —
single dist., dms ..... lb. .15½- .18
tanks ..... lb. .13 - —
Palmarosa oil, cns ..... lb. 4.90 6.00
Papain, powd., bots. ..... lb. 3.25 -10.00
Papaverine hydrochloride, nat. or syn., USP cns., 25-oz. to 100-oz. lots oz. 5.00 - —
cns., smaller lots oz. 5.05 5.20
Papaverine sulfate, nat. or syn., USP, cns oz 7.10 7.35
Paprika, Bulgarian, bgs. ..... lb. .32 - —
Hungarian, bgs. ..... lb. .33 - —
Spanish, bgs ..... lb. .30 - —
Yugoslavian, bgs. ..... lb. .38 - —
Para-aminobenzoic acid (see p-Aminobenzoic acid).
Parachlorobenzoic acid (see p-Chlorobenzoic acid).
Paramethylphenylcinchonic acid (see Neocinchophen).
Paranitrobenzoic acid (see p-Nitrobenzoic acid).
Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid).
Para-aminophenol (see p-Aminophenol).
Parachlorophenol (see p-Chlorophenol).
Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline).
Para-anisidin (see p-Ansidine)
Parachloraniline (see p-Chloraniline).
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).
Paracresol (see p-Cresol).
Paradibromobenzene (see p-Dibromobenzene).
Paradichlorobenzene (see p-Dichlorobenzene).
Para toner, red, bbls ..... lb. 1.30 - —
Chlorinated, kgs. ..... lb. 1.41 - —
Paraffin, crude, scale, white, 123°-127°F., ASTM, tanks, refy. lb. .0655- .0660
fully refd., 122°-124°F., ASTM, lb. .0765- —
125°-127°F., ASTM, tanks, refy. lb. .0765- —
130°-132°F., ASTM, tanks, refy. lb. .0765- —
132°-134° F., ASTM, tanks, refy. 135°-137°F., ASTM, tanks, refy. lb. .0765- —
AMP temperatures are an arbitrary 3°F higher than ASTM.
Paraffin oil, pale, 100-110 vis., at 100°F., tanks east coast refy gal. .14 - —
Paraffin wax (see Paraffin)
Paraformaldehyde 91% flake, bgs., c.l., frt. alld lb. .10 - —
bgs., l.c.l., frt. alld lb. .12 - .13
91%, powd., bgs., c.l., ex whse. lb. .1715- —
bgs. l.c.l. ex whse lb. .1865- —
Paraformaldehyde, USP-X, fib. dms., c.l. lb. .19 - —
fib dms. 1,000-lb lots lb. .20 - —
fib dms., smaller lots lb. .21½- —
Paraldehyde tech., 98%, 55-gal. dms., t.l., dlvd. E lb. .14 - —
55-gal. dms., l.c.l., dlvd. E lb. .15½- —
tanks, dlvd. E ..... lb. .11½- —
Paranitroaniline (see p-Nitroaniline).
Paranitrochlorobenzene (see p-Nitrochlorobenzene)
Paranitrotoluene (see p-Nitrotoluene).
Paranitrophenol (see p-Nitrophenol).
Paraphenetidine (see p-Phenetidine)
Paraphenylenediamine (see p-Phenylenediamine).
Paraphenylphenol (see p-Phenylphenol).
Para-tertiary-amylphenol (see p-tert-Amylphenol).
Para-tertiary butylphenol (see p-tert-Butylphenol).
Parathion ethyl, dms., frt. alld lb. .84 —
Parathion prices 2c. per lb. higher in West.
Paratoluenesulfonamide (see p-Toluenesulfonamide).
Passion flower herb, bls ..... lb. 35 40
Patchouli oil, imp., cns. ..... lb. 5.60 6.50
Peach kernel oil USP (see Apricot kernel oil).
Peacock blue, fugitive, 100% color strength, 250-lb. bbls., dlvd E of Rockies lb. 1.00 —
Peacock blue price 1c. higher W of Rockies.
Peanut meal, old process, 45% bgs., f.o.b. mills ..ton. 62.00 - —
solvent, same basis ..... ton. 60.00 - —
Peanut oil crude, tanks, t.o.b. mills lb. .15 - —
Refd., dms. ..... lb. .20½- .20¾
tanks ..... lb. .18½- —
Pectin, dom., NF, citrus, powd., 100 kilos, f.o.b. shipt. pt kilo 4.52 —
Pelargonic acid, dms., c.l., dlvd. E lb. .27½- —
ton lots, same basis ..... lb. .28½- —
tanks, same basis ..... lb. .25 - —
Penicillin, potassium, cryst., bulk. 1,000,000 units. .018 - —
Penicillin, procaine, cryst., bulk. 1,000,000 units. .020 - —
Pennyroyal oil, USP, imported, cns. lb. 2.35 - 2.80
Pentachlorophenol, 50-lb. bgs., c.l., t.l., works, frt. equald lb. .21 - —
bgs., less than ton-lots, same basis. lb. .29 - —
bgs., c.l., t.l., 2,000 lb. minimum, same basis lb. .22¼- —
Pentachlorophenol in dms. 1c. higher.
Pentaerythritol, tech., bgs., c.l., dlvd lb. .31 - —
bgs., l.c.l., dlvd. lb. .32 - —
Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).
Pentane, indust., tanks, Tex. refy. gal. .14 - —
Pentobarbital, dms., 100 lbs. or more lb. 6.00 - —
Pepper, black, Malabar, bgs. ..... lb. .47 - —
Lampong, bgs. ..... lb. .47 - —
Red, Funtuas, bgs. ..... lb. .32 - —
Japanese, Hontoka, bgs. ..... lb. .37½- —
Santaka, bgs. ..... lb. .31½- —
Sudanese, bgs. ..... lb. .36 - —
White, Muntok, bgs ..... lb. .65 - —
Peppermint leaves, dom., USP, bls., dms lb. No stocks.
imp., USP, dms. ..... lb. .85 - .90
Peppermint oil, nat., dms. ..... lb. 4.40 - —
Redist., USP, dms. ..... lb. 4.65 - —
Perchloroethylene, dms., c.l., or t.l., dlvd lb. .13½- —
dms., l.c.l., dlvd. ..... lb. .15¼- —
tanks, dlvd. ..... lb. .11¾- —
tanktruck, 1,000 gal min. dlvd lb .12¼- —
Peri acid, dry bbls., frt. alld lb. 1.60 - —
Paste, bbls. frt. alld ..... lb 1.55 - —
Peru balsam, dms ..... lb. 1.15 - 1.50
Persic oil, USP (see Apricot kernel oil).
Petitgrain oil, South American, cns., dms lb. 2.30 - —
Petrolatum, NF, cream, dms., c.l., refy. lb. .085 - 08625
dms., l.c.l., dlvd ..... lb. .11125-11250
tanks, refy. ..... lb. .0625- .06375
NF, extra amber, dms., c.l., refy. lb. .07625- —
dms., l.c.l., dlvd ..... lb. .1025- —
tanks, refy. ..... lb. .05375- —
NF, soft yellow, dms., c.l., refy lb. .07625- —
dms., l.c.l., dlvd ..... lb. .1025- —
tanks, refy. ..... lb. .05375- —
USP, lily white, dms., c.l., refy. lb. .09125-.09675
dms., l.c.l., dlvd ..... lb. .1175- .1225
tanks, refy. ..... lb. .0 875- —
USP, snow white, dms., c.l., refy. .09625- —
dms., l.c.l., dlvd ..... lb. .1225- —
tanks, refy. ..... lb. .07375- —
Full tankwagons of petrolatum are ¼c. more per lb. than tankcars.
Petroleum pitch (see Asphalt, petroleum).

**PETROLEUM PRODUCTS**
Petroleum product quotations are listed individually. For example, prices on Petroleum, mineral spirits, may be found in the M's under Mineral spirits, petroleum.

Petroleum sulfonate, oil soluble, 60-62% sulfonic content, non-ret dms., c.l., works. lb. .16½- .18¾
non-ret. dms., l.c.l., works lb. .17½ .19
tanks, works lb. .14½- .17
50-55% sulfuric content, non-ret. dms., c.l., works lb. .16 - —
non-ret. dms., l.c.l., works lb. .17 - —
tanks, works lb. .13 - —
o-Phenetidine, dms., c.l., frt. alld. E lb .91 - —
dms., l.c.l., same basis lb. 93 - —
p-Phenetidine, dms., c.l., frt. alld. lb 1.05 - —
dms. same basis lb 1.08 - —
Phenobarbitol, USP, dms., 100-lbs., frt. alld lb. 3.25 - —
Phenobarbital-Sodium (see sodium phenobarbital).
Phenol, 90-92% (cresol 8-10%), non-ret. dms., frt. alld E. of Rockies lb. .17¼- —
non-ret. dms., l.c.l., same basis. lb. .18¼- —
tanks, same basis lb. .15¼- —
Phenol, 82-84% (cresol 16-18%) non-ret. dms., c.l., same basis. lb. .17 - —
non-ret. dms., l.c.l., same basis. lb. .18 - —
tanks, same basis ..... lb. .15 - —
39°C., or above, tar dist., non-ret. dms., c.l., same basis lb. .18½- —
non-ret. dms., l.c.l. ..... lb. .19½- —
tanks, same basis ..... lb. .16½- —
Phenol, USP, syn., dms., c.l., t.l., frt. alld lb. .19 - —
dms., l.c.l., same basis .. lb. .21 - —
tanks, same basis ..... lb. .17 - —
Phenolphthalein, USP or yellow, 250-lb dm., 2,000 lbs., frt alld lb 1.30 - —
250-lb dm., same basis lb 1.35 —
Phenothiazine drench fib dms. t.l. dlvd lb. 46 - —
fib. dms., ton lots, dlvd lb. 49 - —
NF, fib. dms., t.l., dlvd .. lb. 45 - —
fib dms., ton lots, dlvd .... lb. 48 - —
Phenyl acetate, dms. 100-lb. lots, works lb .50 - —
Phenyl salicylate (see Salol)
Phenylacetaldehyde, soln., 50% bots lb 2.13 2.35
100%, bots. ..... lb 3.80 4.00
Phenylacetic acid, pure, cryst., cns lb 1.25 1.75
di-Phenylalanine, dms., 1-kilo kilo. 65.00 - —
l-Phenyl-3-carbethoxy pyrazolone-5, fib dms., 200-lb lots, dlvd. E lb. 3.45 - —
fib dms., smaller lots, dlvd. E lb. 3.80 - —
N-Phenyldiethanolamine, dms., c.l., dlvd. E lb. .50 - —
dms., l.c.l., dlvd. E ..... lb. .51½- —
tanks, dlvd. E ..... lb. .47½- —
m-Phenylenediamine, dms., c.l., t.l., frt. alld lb 1.08 - —
l.c.l., l.t.l., same basis ..... lb. 1.10 - —


HARDWORKING JEFFERSON CHEMICALS

# MORPHOLINE




## Morpholine gives self-polishing waxes their two most important qualities

*High gloss* and *water resistance*, the two most essential characteristics in good self-polishing waxes, are achieved with morpholine-based emulsifiers. Higher gloss generally depends on fine emulsions, while coarser emulsions yield dull surface coatings. Emulsions prepared with morpholine are distinguished by their stability and small particle size . . . most are less than one micron in diameter.

Superior water resistance in waxes results from morpholine having a volatility approaching that of water. When the loosely bound fatty acid-morpholine compound breaks down, the morpholine component evaporates at approximately the same rate as water. Consequently the resultant wax film is left void of morpholine and has no tendency to re-emulsify when wetted. In both water repellent and moisture impermeability tests, wax films prepared with morpholine are 50 to 60% more effective than films prepared with nonvolatile soaps.

Whatever your applications for this versatile amino ether, Jefferson is pleased to offer technical assistance. Write for Morpholine Technical Brochure . . . Jefferson Chemical Company, Inc., 1121 Walker Avenue, P. O. Box 303, Houston 1, Texas.

**SPECIFICATIONS**

Specific gravity, 20/20°C. ..... 0.999 min.
1.004 max.
Boiling range, ASTM, °C.
IBP: ..... 126.0 min.
DP: ..... 130.0 max.
Purity, wt. % ..... 98.0 min.
Color, Pt-Co scale ..... 15 max.
Water miscibility
10 cc. in 90 cc. water ..... No turbidity

**SELECT PROPERTIES**

Boiling point, °C., 760 mm. Hg ..... 128.9
Flash point, °F., (open cup) ..... 100.0
Freezing point, °C. ..... -4.9
Weight, 20°C. ..... 8.3 lbs./gal.

HOUSTON • NEW YORK • CHICAGO • CLEVELAND
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JEFFERSON CHEMICALS

002

o-Phenylenediamine, coml, fib, dms, 100 to 1,000 lbs., works lb 1.70 - 1.80
p-Phenylenediamine, tech., dms, works lb 1.55 - —
Phenylethanolamine, dms., c.l., works lb .75½- —
dms., t.c.l., same basis lb .76¼- —
Phenylethyl acetate bots. lb 1.35 1.40
2-Phenylethyl alcohol, extra, dms. lb 1.14 1.50
Standard dms lb 1.10 1.60
b-Phenylethylamine dms., 20,000 lbs. or more, frt. alld lb 1.50 —
dms. smaller lots, frt alld lb 1.70 1.85
Phenylethylphenyl acetate, bots lb 4.00 4.25
Phenylglyconic acid (see Mendelic acid).
Phenylhydrazine 97%, 450-lb dms. lb 1.45 —
1-Phenyl-3-methyl pyrazolone-5, fib, dms., 250-lb lots, dlvd E lb 1.80 - —
fib dms, smaller lots, dlvd E lb 2.10 - —
o-Phenylphenol dms, t.c.l., works, lb .48 .50
p-Phenylphenol, bgs, c.l., works lb .38½- —
bgs, t.c.l., works lb .43 - —
Philippine copal gum, pale, chips, bgs lb .23¼- .27
nubs, bgs lb .33¼ .37
seeds bgs lb .20 Nom.
sorts, bgs lb .20 .24
Phloroglucinol coml., fib dms., works lb 6.40 - —
CP bots., works lb 17.75 - —
Tech. fib dms works lb 10.45 - —
Phloxin red toner (see Eosin red toner).
Phosgene, ref cyls, works lb 15½- —
Phosphate defluorinated (see under D).
Phosphate rock, Curacao, Atlantic ports New Orleans ton 46.50 - —
Phosphate rock, Florida, land pebble, run-of-mine, washed, dried, unground, 66-68%, b.p.l., bulk, c.l., mines, short ton 4.989 5.398
68-70%, b.p.l., bulk, c.l., same basis short ton 5.849 5.858
70-72%, b.p.l. bulk, c.l., same basis short ton 6.429 6.438
Phosphate rock, Florida, land pebble, run of mine, washed, dried, unground, 74-75%, b.p.l., bulk, c.l., same basis, short ton 7.329 7.338
76-77%, b.p.l., c.l., bulk, same basis short ton 8.219 8.228
Above Florida prices are based on fuel oil at 2.52 per bbl and labor at $1.64.
Phosphoric acid, food grade, 75%, chys, c.l. works, E., frt. equald 100 lbs. 7.00 —
chys, t.c.l. same basis 100 lbs 7.25 7.75
tanks, t.w., works 100 lbs 5.60 —
80% chys, c.l. frt equald 100 lbs 7.85 —
chys, t.c.l., works 100 lbs 8.10 9.35
tanks, t.w. works 100 lbs 6.00 —
NF 85% chys, c.l., works 100 lbs 8.50 —
chys., t.c.l., works 100 lbs 8.75 9.00
tanks, t.w., works 100 lbs 6.65 —
Phosphorus, amorph., red, dms., t.l. works lb .55 —
dms, smaller lots, works lb .56 .57
white (yellow), solid dms., c.l., works, frt. equald lb .20 20½
dms, t.c.l. works, frt. equald lb .21½ —
tanks, works, frt equald, lb .19 —
Phosphorus oxychloride, dms., c.l., works lb .14 —
dms, t.c.l., works lb .15 —
tanks, works frt equald lb 12½ —
Phosphorus pentasulfide, powd., dms., c.l. works lb .13½ —
dms t.c.l. works lb .14½ .15½
Solid, dms., c.l., works lb .11½ —
dms, t.c.l. works lb .12½ 13½
Phosphorus pentoxide, dms., c.l., works lb .1375- .1475
dms, t.c.l. works lb .1475- .1675
Phosphorus sesquisulfide, dms., cs., c.l., works lb .38 —
dms, t.c.l. works lb .39 .40
Phosphorus trichloride dms, c.l., works lb .14 —
dms, t.c.l. works lb .15 —
tanks works lb 12½- —
Phthalic anhydride bgs, c.l., works, frt. equald lb .20 - —
bgs., t.c.l., same basis lb .21 - —
tanks, same basis lb .19½- —
Phthalimide 97-98%, dms., frt, alld lb .65 —
Phthalocyanine blue, full strength, bbls, dlvd E of Rockies, lb 2.90 - —
Resinated bbls., same basis lb 2.75 - —
Water dispersable bbls., same basis lb 1.52 —
Phthalocyanine blue prices 1c higher W of Rockies
Phthalocyanine green toner, bbls, works lb 3.35 —
Resinated bbls, lb 3.00 —
Water dispersable, bbls lb 1.71 —
Phthalocyanine green prices 1c higher W of Rockies
Phthalylsulfacetamide, fib dms., 1,000-lb lots or more lb 5.00 —
NF fib dms lb 5.20 —
a-Picoline dms c.l. works, frt equald lb .46 .48
dms., t.c.l., works, frt equald lb .46½ .49
tanks, same basis lb .43 .46
b-Picoline 98% dms, t.l. works lb 1.05 —
dms., t.c.l. same basis lb 1.15 - —
tanks same basis lb .95 —
b,g-Picoline 5°C dms, c.l., works, lb .32½- —
dms, t.c.l. works lb .33 - —
g-Picoline dms, t.o.b., works lb 1.60 - —
tanks, t.l. same basis lb 1.50 - —
Picric acid, NF bbls. lb .85 - —
Tech., bbls. lb .50 - —
Pigment green B, kgs lb 1.55 - —
Pilocarpine hydrochloride, USP, bots oz 4.75 - 5.25
Pilocarpine nitrate USP bots., vials oz. 4.65 5.15
Pimento, Jamaican, bgs lb 9¾- —
Mexican, bgs lb .56 - —
Pimento berry oil NF, dms. lb 3.75 9.25
Pimento leaf oil, crude, cns lb 2.50 2.60
Pine oil, dest-dist, dms., t.c.l. works lb .15 —
dms, t.c.l ex whse New York, lb .173 —
Steam-dist, dms, ex whse, New York lb .185 —
dms, dlvd lb .188 —
Pineneedle oil, Siberian (see Abies oil),
Pink root, bls. lb 2.25 —
Piperazine anhyd, dms, c.l., frt alld, E lb 1.80 - —
dms., t.c.l., frt alld E lb 1.85 - —
Piperazine citrate, 38% dms., 1,000 lbs. or more, frt alld lb 1.33 - —
Piperazine dihydrochloride, 51%, dms, 1,000 lbs or more, frt alld lb 1.29 - —
Piperazine hexahydrate, 44%, dms., 1,000 lbs. or more, frt. alld lb .90 - —
dms., 200-900 lbs., frt. alld lb .93 - —
Piperazine phosphate, 42%, dms., 1,000 lbs or more, frt, alld lb 1.11 - —
Piperidine, dist., 98% min., 5 dms. or more, t.c.l., t.l., f.o.b. works lb 2.65 - —
1-4 dms., same basis lb 2.70 - —
dms., c.l., t.l., frt. equald lb 2.55 - —
Piperonyl butoxide dms. dlvd E lb 4.50 5.05

**PITCHES**
Pitch quotations are listed individually For example, prices on Pitch, soybean, may be found in the S's under Soybean pitch.

Platinum metal, works oz 81.00 85.00
Pleurisy root bls. lb .45 .50
Podophyllum resin, NF, dms lb 12.50 15.50
Poke root, bls. lb .19 .22
Polymyxin, bots., bulk., 50 billion units or more 1,000,000 units. .52 —
bulk, bots., 25-50 billion units. 1,000,000 units. .54 - —
bulk, bots., 1-25 billion units. 1,000,000 units. .56 - —
Polyoxyethylene sorbitan monostearate, dms, 20,000-lb. lots, works lb .42 - —
dms., 10,000-20,000-lb lots, works. lb .44 - —
dms, smaller lots, works lb .47 .49
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb lots, works lb .42 —
dms, 10,000-20,000-lb lots, works lb .44 —
dms., smaller lots, works lb .47 .49
Pontianak copal gum, chips, bgs lb .23½- .26
Nubs, bgs. lb .38 .44
Poppy seed, Argentine, bgs. lb No stocks.
Dutch, bgs. lb .14 - —
Danish, bgs. lb .14 - —
Polish, bgs. lb .13 - —
Turkish, bgs. lb .11 - —
Potash caustic, liq, 45% basis, dms., c.l. works 100 lbs 4.25 - —
dms., t.c.l., same basis 100 lbs 5.25 - —
tanks, same basis 100 lbs 3.70 - —
reg., flake 88-92% dms, c.l. same basis 100 lbs 9.35 —
dms., t.c.l., same basis, 100 lbs 11.05 - —
solid, 88-92% dms, c.l. works 100 lbs 9.10 - —
dms, t.c.l., works 100 lbs 10.60 - —
Potassium acetate, NF, 200-lb dm, f.o.b works, E lb .31 - —
Potassium bicarbonate, USP, gran dms lb .22 - —
powd, dms lb .24 - —
Potassium bichromate, gran., bgs., c.l. t.l., works lb .18 —
bgs, t.c.l. works lb 18½ 19¾
Potassium bichromate in dms 4c higher
Potassium bitartrate, NF, gran., powd, 100-lb bgs., c.l., frt equald lb .37 - —
100-lb bgs, 5,000 lbs l shipt., same basis lb .38 - —
100-lb bgs, smaller lots, same basis lb .40 —
Potassium borohydride powd., dms., works lb 16.00 22.00
Pelletized potassium borohydride $1.25 per lb higher in 1,000-lb lots
Potassium bromate, 200-lb dms., c.l. frt alld lb .49 —
Potassium bromide USP gran., bbls, kgs lb .39 .40
Potassium carbonate, dom. NF, gran., bbls., dms lb .22 .24
Dom tech, powd., bbls, dms lb .21 .22
Dom calcined bgs, c.l works 100 lbs 8.50 —
bgs, t.c.l. same basis 100 lbs 9.55 —
Dom, hydrated 83-85%, bgs, c.l., works 100 lbs 7.10 - —
bgs, t.c.l. works 100 lbs 8.15 - —
Potassium chlorate cryst, dms., c.l., works lb 12¼ —
dms., t.c.l., works lb 13½ 14½
Powd, dms, c.l., works lb 12¾ —
dms, t.c.l. works lb .14 .15
works lb 12¼ —
Potassium chlorate, NF cryst., dms, 2,000 lbs or more, works lb 16¾ - —
NF, gran., 25-lb metal dms lb .36 - —
NF powd, dms., 2,000 lbs or more works lb 17¼ —
Potassium chloride indust, 99.9% KCl, bulk, c.l. works ton 29.00 - —
bgs., c.l., works ton 30.00 - —
99.3% KCl, bulk, c.l. works ton 28.00 - —
bgs., c.l., works ton 33.00 - —
USP, cryst., dms lb .17 - —
Potassium chloride, USP, gran., dms lb .21 - .23
USP powd, dms. lb .24 .26
Potassium chloride agricultural (see Potassium muriate)
Potassium chromate, tech., dms., works lb .50 .51
Potassium citrate, NF gran, 250-lb dms., f.o.b works E lb .43 - —
powd, 250-lb dms, same basis, lb .46 —
Potassium cyanide dms, 20,000-lb lots or more works lb 42½ —
dms, 2,000-19,999 lb lots works, lb .43 —
dms, smaller lots, works lb .44 44½
Potassium dichromate (see Potassium bichromate)
Potassium ferricyanide dms., ton lots, works lb .50 - —
dms, smaller lots works lb .65 - —
Potassium ferrocyanide, dms., ton lots lb 24½- —
dms, smaller lots lb .29 - —
Potassium fluoborate fib dms., c.l., works lb .30 - —
fib dms., t.c.l. works lb .31 - —
Potassium fluoride, dms., works lb .36 .37
Potassium gluconate, 100-lb dm, f.o.b works & lb 1.67 —
Potassium guaiacol sulfonate NF, dms lb 2.10 2.30
Potassium hydroxide tech (see Potash caustic)
Potassium hydroxide, USP, pellets, 100-lb dms, 1 to 100-dm. lots lb 33½ .38
Potassium hypophosphite, NF fib dms, 1,000 lb lots lb 1.38 - —
Potassium iodide, USP cryst, gran., 250-lb, dm., f.o.b, works, lb 1.55 - —
Potassium manure salt, min 20% $K_2O$, bulk, c.l., works, unit-ton .17 - .1765
Potassium metabisulfite, gran, dms., lb .16 - —
Powd., dms lb .27 - —
Potassium muriate, standard, bulk, c.l., works unit-ton, bagged 60% minimum $K_2O$, same basis ton 26.60- 27.80
Gran., bulk, c.l., works unit-ton, bagged, 60% minimum $K_2O$, same basis ton 28.10 -30.10
Inside prices apply to material contracted for prior to July 1, 1960.
Outside prices apply to material contracted for after that date but also for delivery during the current month.
Potassium nitrate, NF, cryst., bbls., 20-ton lots 100 lbs 17.00 —
bbls., smaller lots 100 lbs 18.00 -19.00
gran., bgs., 20-ton lots 100 lbs 9.50 —
bgs, smaller lots 100 lbs 11.00 -12.00
powd., bgs., 20-ton lots 100 lbs 10.50 —
bgs, smaller lots 100 lbs 12.00 -13.00
Potassium oxalate, neutral, tech., fine gran., powd., 300-lb. dm, f.o.b works E lb .33 - —
Potassium pentaborate gran., dms., c.l. works ton 219.50 - —
dms., ton lots, ex whse 100 lbs 17.48 - —
dms., smaller lots, ex whse 100 lbs 18.73 - —
Powdered potassium pentaborate $10 per ton higher.
Potassium perchlorate, dms., c.l., works lb .18½- —
dms, t.c.l., works lb .19 - .20
Potassium permanganate, coml., kgs., works lb .25 .33
USP dms., works lb .29 .35
Potassium pyrophosphate, tetrabasic, dms., works lb .1475- .1575
Potassium prussiate red (see Potassium ferrocyanide)
Potassium prussiate yellow (see Potassium ferro-cyanide).
Potassium silicate electrical grade, 30° Be. 1:2.0, dms., c.l., works 100 lbs. 6.50 - —
dms., t.c.l., 5 dm. lots or more works 100 lbs. 7.25 7.65
tanks, works 100 lbs. 6.15 - —
40.5° Be 1:2.1, dms., c.l., works. 100 lbs. 5.95 - —
dms, t.c.l., 5 dm. lots or more, works 100 lbs. 6.70 - —
tanks, works 100 lbs. 5.60 - —
glass grade, bgs., c.l., works. 100 lbs. 17.30 -18.00
bgs., t.c.l., works 100 lbs. 17.80 - —
Soln., 29° Be. 1:2.5, dms., c.l., works 100 lbs. 4.95 - —
dms, t.c.l., 5-dm. lots or more, works 100 lbs. 5.70 - —
tanks, works 100 lbs. 4.60 - —
Potassium silicofluoride, bgs, works, lb .09½- .10
Potassium silicofluoride in drums, 0.4c per lb higher
Potassium stannate dms, frt, alld, lb .814 - .887
Potassium sulfate, min 50% $K_2O$, agricultural, bulk, c.l., works unit-ton. .70½- .72½
Inside price applies to tonnage contracted for prior to July 1, 1960
Outside price applies to tonnage contracted for after that date but also for delivery during the current month
Potassium sulfate NF VII, cryst., dms., lb .31 .33
NF VII, gran, 400-lb, dm lb .16 - —
NF VII powd, 400-lb dm lb .17 - —
Potassium sulfocyanate, NF, cryst., (see Potassium thiocyanate)
Potassium thiocyanate, NF, cryst., dms, works lb .96 .98
Tech, dms, works lb .77 .79
Potassium titanate ctns, c.l., works, lb .16¼- —
ctns, 5-ton lots, works lb .16¼- —
ctns., 1-ton lots or less, works lb .16¾- —
Potassium-magnesium sulfate, basis 40% $K_2SO_4$ and 18% MgO, bulk works base price, ton 13.45 - —
bulk, works, July forward ton 14.00 - —
Potassium-sodium tartrate, NF gran. or powd., 250-lb dms., c.l., works E lb .42½- —
250-lb dms, 5,000-lb. lots, same basis lb .43 - —
250-lb dms., same basis lb .43½- —
Potassium-titanium fluoride, fib, dms., works lb .39 .40
Potassium-zirconium flouride, fib, dms., c.l., works lb .50 - —
fib dms., t.c.l., works lb .52½- .55
Pregnenolone, bots. gram. No prices.
Pregnenolone acetate, bots. gram. No prices.
Procaine hydrochloride USP antibiotic grade dms., 2,000-lb lots, frt alld lb 2.25 - —
Procaine hydrochloride, USP, ampule grade, dms., 1,000-lb. lots, frt. alld lb 2.40 - —
dms, 500 lbs lb 2.45 - —
dms, 100 lbs lb 2.50 —
Progesterone USP bots gram No prices.
Pregnenolone acetate bots gram No prices.
Propenyl guaethol dms lb 24.30 -27.00
b-Propriolactone tech., dms., c.l., f.o.b. works lb .47½- —
dms., t.c.l., t.l., same basis lb .48½- —
tanks, same basis lb .45 - —
Propionic acid syn, pure, dms., c.l., dlvd lb .23¼- —
dms., t.c.l., dlvd lb .24¾- —
tanks, dlvd lb .20¾- —
n-Propyl acetate, dms., c.l., dlvd, lb .14¾- —
dms., t.c.l., dlvd lb .16¼- —
tanks, dlvd lb .12¼- —
n-Propyl alcohol, dms., c.l., dlvd lb .14 .15
dms., t.c.l., dlvd lb .15½- .16½
tanks, dlvd lb .11½- .12½
n-Propyl gallate, dms., 100 to 2,000-lb lots works lb 3.90 4.40
n-Propyl-p-hyroxybenzoate, USP, dms lb 2.30 2.40
Propyl thiouracil bots., 50 kilo lots or more kilo 55.00 —
bots, smaller lots kilo 55.10 -55.30
n-Propylamine dms., c.l., dlvd lb 1.24 —
dms, t.c.l. same basis lb 1.255 —
n-Propylene dichloride consumers', dms., c.l. dlvd, E lb .0845- —
dms., t.c.l., same basis lb .0995- —
tanks same basis lb .07 —
Propylene dichloride prices 1c West 1c. higher same basis
Propylene glycol indust., dms., c.l., dlvd, E lb .15 - —
dms., t.c.l., same basis lb .16¾- —
tanks, same basis lb .12½- —
USP dms., c.l., dlvd, E lb .17 - —
dms, t.c.l., same basis lb .18¾- —
tanks, same basis lb .14½- —
Propylene glycol methyl ether, dms., c.l., dlvd lb .20 - —
dms., t.c.l., same basis lb .21 - —
tanks, same basis lb .18½- —
Propylene oxide dms., c.l., dlvd, E, lb .17 - —
dms., t.c.l., dlvd, E lb .18½- —
tanks dlvd E lb .14½- —
Psyllium seed, black, bgs lb .42 - .45
Blonde bgs. lb .18 - .20
Husks, bgs. lb .42 - .45
Pumice, dom., grd., coarse to fine, 0, ½, 1, 1½, 2, 3, bgs., ton lots lb .03½- .04½
bgs., smaller lots lb .03½- —
imp., Italian, silk-screen, coarse, bgs, ton lots lb .06½- —
fine, bgs, ton lots lb .04 - —
sun dried, coarse, bgs ton 60.00 —
fine, bgs. ton 60.00 -70.00
Pumpkin seed, bgs lb .25 .30
Pyrethrins, syn (see Allethrin).
Pyrethrum flowers, fine grd, 0.9% pyrethrins, bgs., ton, works lb .50 - —
Powd., 1.3% pyrethrins, bgs., ton, works lb .71 - —
Pyrethrum liquid, 20:1 basis (2 grams pyrethrins per 100cc odorless base), dms., works, gal. 9.60 9.80
100/1 basis (10 grams pyrethrine per 100cc odorless base), dms., works gal. 45.90 -46.90
Pyrethrum oleoresin, dewaxed, 20%, dms., works lb 11.00 -11.35
purif, 20%, dms, works lb 11.00 -11.35
Pyridine, denat, dms, c.l. works and frt. equald gal. 2.77 - —
dms, t.c.l., same basis gal. 2.80 - —
Refd., 2° non-ret dms., c.l., same basis lb .75½- —
dms., t.c.l., same basis lb .76 - .76½
tanks, same basis lb .71 - —
Potassium persulfate, dms., c.l., works lb .17½- —
dms, t.c.l., works lb .18 .21
Pyridoxine hydrochloride, USP 500-gram bots., dms., f.o.b works kilo 95.00 -100.00
Pyrites, Canadian 48-50% S, mines, long-ton 4.50 5.00
Pyrocatechol (see Catechol)
Pyrogallic acid, NF (see Pyrogallol).
Pyrogallic acid tech, bbls., 100-lbs., f.o.b., works lb 3.50 - —
Pyrogallol, NF 100-lb dms lb 3.50 - —
Pyroxylin, USP bots lb 9.50 - —

## Q

Quassia chips lb .10 - —
Quicksilver (see Mercury metal)
Quince seed, bgs lb 1.75 - 2.00
Quinidine sulfate, USP, 1,000-oz dm oz. .78½- —
Quinine, NF, 1,000-oz. dm. oz. .3750- —
Quinine bisulfate USP 1,000-oz dm. oz. .28 - —
Quinine hydrochloride, 1,000-oz dm. oz. .3650- —
Quinine sulfate USP 1,000-oz dm. oz. .3150- —
Quinoline dms., c.l. frt. equald lb 50¾- —
dms., t.c.l., same basis lb 51¼- —
tanks, same basis lb .50 —

## R

R salt paste, dms., c.l., t.l., frt. alld., 100% basis lb .98 - —
Powd., dms., c.l., t.l., frt. alld, 100% basis lb 1.08 - —
Rapeseed oil, dms. lb .19 - .19½
tanks lb .17½- —
Rare earth oxalate, NF, 45-50% bgs, works lb 1.15 —
Rauwolfia serpentina root, powd., bbls, dms lb 1.00 1.20
Red carmine, No. 40 (see Carmine)
Red oil (see Oleic acid)

**RED PIGMENTS**
Red pigment quotations are listed individually For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner

Red precipitate (see Mercuric oxide red)
Red toner, Lake C alizanine, bbls., works lb 1.30 - —
Reserpine, cryst. bots gram 1.25 - —
Resorcinol, tech grade, bgs., c.l., works, frt. equald lb 77½- —
bgs., t.c.l., same basis lb 78½- —
Resorcinol in dms. 1c. per lb more
USP powd., dms. works lb 2.93 —
Resorcinol monoacetate, NF dms. lb 2.50 —
Rhatany root, bgs lb .14 .16
Rhodamine red toner, molybdated, PMA, kgs., works lb 6.00 —
Tungstated, PTMA works, kgs lb 6.60 —
Rhodinol, 5-lb cans lb 42.00 -51.00
Synthetic lb 14.00 -16.00
Rhubarb root, India, whole, bgs lb .25 —
powd., bgs lb 35 —
Riboflavin USP fib dms., kilo or more, dlvd kilo 36.00 - —
Riboflavin, 5-phosphate-sodium fib dms, kilo or more, dlvd, kilo 104.70 - —
Rice bran oil, clarified, dms, t.c.l., lb .15½- —
tanks, dlvd, E lb .14 - —
Ricinoleic acid (see Castor oil acids split)
Rochelle salt (see Potassium sodium tartrate)
Roofing pitch (see Coal tar pitch roofing)
Rose oil, nat., Bulgarian, bots lb 1,152.00- —
Turkish, bots., otto lb 600.00 -700.00
absolute lb 145.00 - —
Rosemary oil, Spanish, NF, cns., dms lb .97 1.40
Spanish, tech., cns., dms lb .80 - .95
Rosin gum and wood (see Naval Stores in Protective Coatings market)
Rotenone, fib, dms., works unit-lb. .10½- —
Resin, 35-45% fib dms, works, unit-lb. .10½- —
Rottenstone, bgs, 5-ton lots, ex-whse lb .03¾- —
bgs, ton lots, same basis lb 04¼- —
Rubber solvent petroleum, 115°F-245°F b.r., tankcars, New Jersey and New York gal. 19 —
Group 3 gal. .13875- —
Houston Texas gal 155 —
Rue oil, bots lb 2.75 3.00
Rutin, NF fib dms, 10 kilo lots kilo. 11.00 - —
fib dms., 5 kilo lots kilo. 11.50 - —
fib dms., 1 kilo kilo. 13.00 - —
Ryania, 100% powd., bgs., c.l., works lb 22 - —
bgs., t.c.l. same basis lb 24 - —

## S

S acid, bbls., works lb 3.25 - —
Sabadilla seed, activated, ground with lime bbls lb 42 .44
Saccharin calcium, fib dms, 1,000-lb lots, works lb 2.50 —
Saccharin, USP, gran., soluble, dms., 1,000-lb. lots lb 1.50 - —
dms., smaller lots lb 1.60 - —
USP, powd., soluble, dms., 1,000-lb. lots lb 1.55 - —
dms., smaller lots lb 1.65 - —
USP, powd., insoluble, dms., 1,000-lb. lots lb 1.53 - —
dms., smaller lots lb 1.63 - —
Safflower oil, dms., New York lb .1815- .1840
tanks, Atl. coast lb .1620- .1645
Saffron, Mancha Superior, tins lb 19.50 —

| | | | |
|---|---|---|---|
| Safrol, dms. | lb. | .60 | — |
| Sage, Dalmatian, bgs. | lb. | .40 | — |
| Greek, cns. | lb. | .15 | — |
| Italian, cns. | lb. | .16 | — |
| Sage oil, clary, bots. | lb. | 12.00 | 15.00 |
| Dalmatian, cns. | lb. | 2.85 | 3.25 |
| Spanish, cns. | lb. | 1.25 | 1.75 |

Sal soda (see Soda sal).

| | | | |
|---|---|---|---|
| Salicylaldehyde, dms., c.l., t.l., f.o.b., plant, frt. equald | lb. | 1.23 | — |
| dms., l.c.l., same basis | lb. | 1.25 | — |
| Salicylamide, 100-lb dms | lb. | 1.05 | — |
| Salicylic acid, tech., fib, dms., c.l., t.l., divd | lb. | .40½ | — |
| fib dms, l.c.l., divd | lb. | .44¾ | — |
| USP, cryst., 200-lb. fib. dms., 1,000 lbs. or more | lb. | .51¾ | — |
| 200-lb. fib. dms., less than 1,000 lbs | lb. | .54¾ | — |
| Cryst., 100-lb. fib. dms., 1,000 lbs. or more | lb. | .53¾ | — |
| 100-lb. fib. dms., less than 1,000 lbs | lb. | .56¾ | — |
| Salicylic acid, USP, powd., 100-lb. fib. dms., 1,000 lbs. or more | lb. | .58¾ | — |
| 100-lb. fib. dms., less than 1,000 lbs | lb. | .61¾ | — |
| Salol, NF, gran., bbls., kgs | lb | 1.20 | — |
| Powdered salol, 25c per lb higher. | | | |
| Salt, rock, paper bgs., c.l. 100 lbs | | 1.09 | — |
| Salt, table vacuum, common, fine, paper bgs., c.l 100 lbs. | | 1.34 | — |
| Saltcake, dom. bulk, works, 100% $Na_2SO_4$ basis | ton | 28.00 | — |
| Saltpeter (see Potassium nitrate) | | | |
| Sandalwood E. Indian, chips, bgs., | lb. | .55 | .66 |
| powd. fib dms | lb. | 75 | 76 |
| Sandalwood oil, cns. | lb. | 26.00 | 30.00 |
| Sarcosine, tech., tanks, f.o.b., works, frt equald | lb | 1.03 | — |
| | lb | No stocks. | |
| Sassafras oil, artif., dms | lb. | .45 | — |
| Nat., dom., dms | lb | 1.40 | — |
| Savory oil, cns | lb | 4.75 | — |
| Schaeffer's salt paste, dms., frt. alld 100% basis | lb. | .85 | — |
| Powd. bgs. frt alld. 100% basis. | lb. | .95 | — |
| Scopolamine hydrobromide, USP, bots | oz. | 13.00 | — |
| Sebacic acid, CP, bgs., c.l., works. | lb. | .69½ | — |
| bgs., l.c.l., works | lb. | 71½ | — |
| Purified, bgs. c.l., works | lb. | .65½ | — |
| bgs., l.c.l., works | lb. | .67½ | — |
| Seidlitz mixture fib dms. 5,000-lb. lots | lb. | .30½ | — |
| fib dms., smaller lots | lb. | .31 | .32 |
| Selenium, powd., 99½%, dms., divd. | lb. | 7.00 | — |
| Senega root, bls | lb. | 3.00 | 3.25 |
| Senna leaves, Alexandria, whole and half, bls | lb. | .20 | .22 |
| siftings | lb. | .16 | — |
| Tinnevelly, No. 1, bls. | lb. | .22 | — |
| No. 2, bls | lb. | .18 | — |
| No. 3, bls | lb. | .14 | — |
| pods, bls | lb. | .28 | — |
| powd., bbls., bxs | lb. | .17 | — |
| Serpentaria root, bls | lb. | 6.50 | — |
| Sesame oil, USP, dms., t.c.l | lb. | .37 | .38 |
| Sesame seed, Colombian, bgs. | lb. | .15½ | — |
| Lebanese, hulled, bgs | lb. | .19 | — |
| Nicaraguan, hulled, bgs | lb. | .21 | — |
| nat., bgs. | lb. | .15 | — |
| Salvadorian, Nat. bgs | lb. | .16 | — |
| Shellac, bleached, bonedry, bgs., 1,500-lb. lots | lb. | .47 | — |
| dms., t.c.l., works | lb | .22 | .90½ |
| bbls., 1,500-lb. lots | lb. | .46 | — |
| kgs., 1,500-lb. lots | lb. | .47 | — |
| Bonedry shellacs prices for less than 1,500-lb lots 1c. per lb. higher for all packages. | | | |
| Shellac, bleached, refd. bgs., 1,500-lb. lots | lb. | .56 | — |
| bbls., 1,500-lb. lots | lb. | .57 | — |
| kgs., 1,500-lb. lots | lb. | .58 | — |
| Shellac, orange, lemon No. 1, bgs., 10-bg. lots | lb. | .37 | .39 |
| lemon No. 2, bgs., 10-bg. lots. | lb. | .34 | .37 |
| superfine, bgs., 10-bg. lots | lb. | .32 | .34 |
| Shellac in 1 to 10-bg. lots 1c per lb more. | | | |
| Shingle stain oil, tar distillate, dms., c.l., works | gal. | .37 | — |
| dms., t.c.l., works | gal. | .48 | — |
| tanks, works | gal. | .25 | — |
| Sienna pigment, burnt, paper bgs., c.l., works | lb. | .06½ | .18½ |
| paper bgs., t.c.l., works | lb. | .06¾ | .17¾ |
| Raw, paper bgs., c.l., works | lb. | .06¾ | .16¾ |
| paper bgs., t.c.l., works | lb. | .07 | .17 |
| Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works | ton. | 25.00 | — |
| bgs. l.c.l. works, ex whse. | ton. | 45.00 | 55.00 |
| Silica, hard-quartz, 99½%, 325 mesh, bgs., c.l., works | ton. | 20.00 | — |
| bgs., l.c.l., works | ton. | 25.00 | — |
| 99½%, 140 mesh, bgs., c.l., works | ton. | 15.00 | — |
| bgs., t.c.l. works | ton. | 20.00 | — |
| Silicon tetrachloride, tech., dms., c.l., works | lb. | .20 | — |
| tanks, works | lb. | .15 | — |
| Silver bullion, ingots, cs | Troy oz. | .91⅛ | — |
| Silver cyanide, bots. 1,000-oz. lots, | oz. | .94¼ | — |
| bots., 500-oz. lots | oz. | .95¼ | — |
| bots., 100-oz lots | oz. | .96¼ | — |
| Silver nitrate, CP, cryst., bots., 1,000 to 4,000 oz., f.o.b. works | oz. | .67¼ | — |
| bots. 250-500 oz., same basis, | oz. | 67¾ | — |
| USP granular silver nitrate 4c. per oz. higher. | | | |
| Silver proteinate, mild, USP, 16-oz. bots | oz. | 1.46 | — |
| Snakeroot oil, Canada, cns | lb. | 40.00 | 43.00 |
| Soapbark, crushed, bls. | lb. | .35 | — |
| Powd., bls. | lb. | .40 | — |
| Whole, bls. | lb. | .25 | — |
| Soda ash, dense, 58%, paper bgs., c.l., works 100 lbs. | | 1.90 | — |
| paper bgs., t.c.l., stock pts., 100 lbs. | | 3.00 | 4.77 |
| bulk, c.l. works 100 lbs. | | 1.60 | — |
| Soda ash, light, 58%, paper bgs., c.l., works 100 lbs. | | 1.85 | — |
| paper bgs., t.c.l., stock pts. 100 lbs. | | 3.95 | 4.73 |
| bulk, c.l., works 100 lbs. | | 1.55 | — |
| Soda, caustic, flake, 76%, dms., c.l., works, frt. equald 100 lbs. | | 5.20 | — |
| liq., 50% sellers tanks works, dry basis 100 lbs. | | 2.90 | — |
| 50%, rayon type, sellers' tanks, works, dry basis 100 lbs. | | 2.90 | 3.00 |
| Soda, caustic, liq, 73%, sellers' tanks works, dry basis, 100 lbs. | | 3.00 | — |
| liq., 73% rayon type, sellers' tanks, works, dry basis lb. | | 3.00 | 3.10 |
| solid, 76%, dms., c.l., works, 100 lbs | | 4.80 | — |
| Soda, sal. conc., bgs., c.l. works. 100 lbs. | | 2.50 | — |
| bgs. smaller lots, works 100 lbs | | 2.80 | — |
| Sodium acetate, annyd., bgs., c.l., dlvd. E | lb. | .14½ | — |
| bgs., l.c.l., same basis | lb. | .16½ | — |
| NF, 60%, gran., dms., c.l., works. | lb. | .15½ | — |
| dms., t.c.l., works | lb. | .17½ | — |
| Sodium alginate, NF, white powd., dom. 300 lbs or more | lb. | 1.02 | — |
| Sodium p-aminosalicylate, dms., 100-lb. lots or more, frt. adjusted | lb. | 1.90 | — |
| Sodium antimonilate, bgs., c.l., dlvd. E | lb. | .27½ | — |
| bgs., l.c.l., dlvd. E | lb. | .29 | — |
| Sodium arsenate, 60% arsenic pentoxide, 200 lb. dm., less than ton lots, f.o.b. works | lb. | .24 | — |
| ton lots or more, same basis. | lb. | .23½ | — |
| Sodium arsenite, 94% soluble pink powder, 75% arsenious oxide, dealers, 100-lb. dms., ton lots or more, f.o.b., works | lb. | .18½ | — |
| 1,600-1,900 dms., same basis | lb. | .19 | — |
| 100-500 dms., same basis | lb. | .20 | — |
| Sodium ascorbate, dms., 100-kilos., dms., f.o.b. works | kilo. | 6.80 | — |
| less than 100-kilos | kilo. | 7.05 | — |
| Sodium benzoate, tech., dms., c.l., t.l., frt. alld lb. | | .35 | — |
| dms., l.c.l., same basis | lb. | .39 | — |
| USP, dms., ton lots, same basis. | lb. | .43 | — |
| dms., 1,000-lb. lots, same basis. | lb. | .45 | — |
| Sodium bicarbonate, USP, gran., bgs., c.l., works 100 lbs. | | 2.95 | — |
| bgs., l.c.l., works 100 lbs. | | 3.85 | — |
| USP, powd., bgs., c.l., works, 100 lbs. | | 2.55 | — |
| bgs., t.c.l., works 100 lbs. | | 3.45 | — |
| Sodium bichromate, gran., ogs., c.l., t.l., works | lb. | .13 | — |
| bgs., t.c.l., works | lb. | .13½ | .14¾ |
| Sodium bichromate in dms. ¾c. per lb. higher | | | |
| Sodium bifluoride, fib. dms., c.l., works, frt. equald | lb. | .19½ | — |
| fib. dms., l.c.l., same basis | lb. | .2025 | — |
| Sodium bisulfate, bulk, c.l., works. 100 lbs. | | 2.00 | — |
| dms., c.l., frt. equald 100 lbs. | | 3.00 | 3.60 |
| dms., l.c.l., frt. equald 100 lbs. | | 3.50 | 4.10 |
| Sodium bisulfite, anhyd., bgs., c.l., works 100 lbs. | | 5.00 | — |
| bgs., l.c.l., works 100 lbs. | | 5.45 | — |
| Soln., 35° bbls., c.l., works 100 lbs. | | 1.70 | — |
| bbls., l.c.l., works 100 lbs. | | 2.20 | — |
| Sodium borate (see Borax). | | | |
| Sodium borohydride, powd., dms., c.l., works | lb. | 19.90 | — |
| dms., l.c.l., works | lb. | 33.00 | 40.00 |
| stabilized water soln., 12% NaBH, 100% basis, dms., works | lb. | 15.00 | — |
| Pelletized sodium borohydride $1 per lb. higher in 1,000-lb lots. | | | |
| Sodium bromide, USP, gran., dms., works | lb. | .40 | — |
| Sodium carbonate, cryst., monohydrated (see Soda, sal). | | | |
| Sodium carbonate, monohydrated, bgs., c.l., works 100 lbs. | | 3.10 | — |
| bgs., l.c.l., works 100 lbs. | | 3.50 | — |
| Sodium carboxymethyl cellulose (see CMC). | | | |
| Sodium chlorate, cryst., 350-lb. dms., c.l., works | lb. | .09 | — |
| dms., l.c.l., works | lb. | .09½ | .10¼ |
| Sodium chlorate in 100-lb. dms., only, ¼c. per lb higher. | | | |
| Sodium chloride, tech. (see Salt). | | | |
| Sodium chloride, USP, gran., bgs. | lb. | .03 | — |
| Sodium chlorite, tech., dms., c.l., works | lb. | .58 | — |
| dms., 20-dm. lots or more, works | lb. | .66 | — |
| dms., smaller lots, works | lb. | .70 | .73 |
| Sodium chloroacetate, tech., dms., c.l., works | lb. | .27 | — |
| dms., l.c.l., works | lb. | .29 | — |
| Sodium chromate, anhyd. fib. dms., c.l., t.l., works | lb. | .14¾ | — |
| fib. dms., l.c.l., works | lb. | .15¼ | .16¼ |
| Sodium chromate tetrahydrate, bgs., c.l., t.l., works | lb. | .1015 | — |
| bgs., l.c.l. | lb. | .1065 | .1190 |
| Sodium citrate anhyd., 200-lb dm., f.o.b works E | lb. | .62 | — |
| NF VIII, gran., bgs., c.l., same basis | lb. | .26 | — |
| USP XIV gran., bgs., c.l., same basis | lb | .29 | — |
| Sodium citrate, USP, powd. prices ½c higher. | | | |
| Sodium cyanate, dms. 1,000-lb. lots, works | lb. | .85 | — |
| dms., smaller lots, works | lb. | .90 | 1.10 |
| Sodium cyanide, briquettes or gran., 97 percent min., dms., works, 20,000-lb lots | lb. | .176 | — |
| dms., same basis, 5,000 to 19,999-lb lots | lb. | .188 | — |
| dms., same basis, 1,000 to 4,900-lb. lots | lb. | .198 | — |
| Sodium cyclamate, 100-lb dm., f.o.b. works | lb. | 1.95 | — |
| Sodium diacetate, anhyd., 39-41% acetic acid, dms., c.l., works | lb. | .18 | — |
| 250-lb. dms. t.c.l., works | lb. | 18¾ | — |
| Tech., 33-35% acetic acid, dms., t.c.l., works | lb. | .15 | — |
| 250-lb. dms., t.c.l., works | lb. | .15½ | — |

FOR TANNING . . . chrome tanning . . . and bisulfiting of tannin.

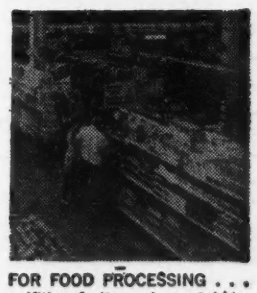
FOR PHOTOGRAPHY . . . in fixing solutions.

FOR TEXTILES . . . bleaching wool . . . as antichlor after bleaching with hypochlorite . . . in rayon manufacture.

FOR WATER TREATMENT . . . as an antichlor.


# Economical Dry Source of $SO_2$

FOR BREWING . . . to sterilize equipment.



FOR FOOD PROCESSING . . . sulfiting fruits and vegetables.

## GENERAL CHEMICAL
## Anhydrous Sodium Bisulfite

If you require an economical dry source of $SO_2$ as a reducing agent, or an antichlor, investigate General Chemical Anhydrous Sodium Bisulfite. You'll find it exceptionally pure . . . virtually as pure as reagent grade. It's high strength, too—97.5% $Na_2S_2O_5$ . . . equivalent to 65.5% $SO_2$.

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**GENERAL CHEMICAL DIVISION**
40 Rector Street, New York 6, N. Y.

Allied Chemical

**Sodium dimethyl dithiocarbamate, 40% soln. dms. c.l., t.l. frt alld., 100% basis** lb 42 —
dms., l.c.l., t.l., same basis lb .47 .59
tanks, same basis lb .38 —

**Sodium ferrocyanide. bgs., 10-ton lots** lb 13½- —
bgs. smaller lots lb 14¼ —

**Sodium fluoride white, 97% fib. dms., c.l., works, frt. equald** lb 1390- —
fib dms. l.c.l., works, frt. equald lb 1465- —

**Sodium formate. bgs. c.l. works 100 lbs** 7.05 - —
bgs. l.c.l. ex whse 100 lbs 8.65 - —

**Sodium gentisate 100-lb fib dms.** lb 5.50 - —

**Sodium gluconate refd., 250-lb dm., f.o.b works &** lb .64 - —

**Tech. bgs. c.l. t.l., same basis** lb .34 - —

**Sodium hydride 50% soln in oil, dms. works** lb 1.25 2.50
25% soln in oil, dms., 50 lbs or less f.o.b shipping point lb 2.20 —
dms. 50-99 lbs. same basis lb 1.77 —
dms. 100-999 lbs same basis lb 1.20 —
dms 1,000 lbs or more, same basis lb .95 —

**Sodium hydrosulfide (see Sodium sulfhydrate).**

**Sodium hydrosulfite dms c.l. frt alld** lb .23½ —
dms l.c.l. frt alld. lb. 25¼- —

**Sodium hydroxide NF, pellets, 100-lb dms. 1 to 100-dm lots.** .23½ .25

**Sodium hydroxide. tech (see Soda caustic).**

**Sodium hypophosphite NF dms 1,000-lb lots** lb .99 —

**Sodium hyposulfite (see Sodium thiosulfate).**

**Sodium iodide. USP 300-lb dms f.o.b. works** lb 2.13 —

**Sodium lauryl sulfate. dms. c.l. dlvd** lb 20½- —
dms. t.l., dlvd. lb 21½- —
tanks dlvd lb 19½- —

**Sodium lignin sulfonate, bgs., c.l., works 100 lbs** 4.25 6.50
t.c.l., bgs., works 100 lbs 4.40 7.00

**Sodium metabisulfite (see Sodium bisulfite).**

**Sodium metaborate octahydrate gran bgs c.l works ton** 240.00 —
bgs., ton lots, ex whse 100 lbs 8.30 - —
bgs. smaller lots ex [illegible] 100 lbs 9.61 11.61

**Tetrahydrate bgs. c.l. works** [illegible] 2.0.00 —
bgs., ton lots, ex whse 100 lbs. 14.83 —
bgs. smaller lots, ex [illegible] 100 lbs. 16.08 18.08

**Sodium metallic, bricks, c.l. works** lb .21 —
Fused. 18,000-lb lots or more, works lb. 19½- —
tanks. works lb 17 —

**Sodium metallnate. bbls., frt. alld.** lb .62 - —

**Sodium metaphosphate, bgs., c.l. f.o.b shipping pt 100 lbs.** 11.10 —
bgs., l.c.l., same basis 100 lbs. 11.85 - —
dms. c.l., same basis 100 lbs 11.70 - —
dms. l.c.l. same basis 100 lbs 12.45 - —

**Sodium metasilicate anhyd., bgs. c.l., works 100 lbs** 5.70 —
bgs 6,000-19,900 lb lots. works 100 lbs 6.05 - —
dms. c.l., works 100 lbs 6.20 - —
dms. l.c.l., works 100 lbs 6.55 - —

**Sodium metasilicate pentahydrate bgs., c.l., works 100 lbs** 4.45 —
bgs. l.c.l., works 100 lbs 4.80 6.75
dms. l.c.l., works 100 lbs 4.95 —
dms. l.c.l., works 100 lbs 5.30 7.25

**Sodium molybdate. anhyd., dms. works. frt equald** lb 92 99
Cryst. dms. works frt alld lb 74 76

**Sodium monoglutamate (see Monosodium glutamate)**

**Sodium monohydrate (see Sodium carbonate monohydrated)**

**Sodium naphthionate, bbls.** lb. .77 - —

**Sodium nitrate. dom., crude, bgs., c.l. works** ton 48.00 - —
bulk, c.l., works ton 44.00 - —
Imp. crude 100-lb. bgs., c.l., Atl. Gulf, Pac., whse ton 48.00 - —
bulk c.l., same basis ton 44.00 - —

**Sodium nitrite. USP bbls., c.l. works, frt. equald 100 lbs.** 9.40 - —
bbls., l.c.l., same basis 100 lbs. 11.40 - —

**Sodium orthosilicate conc. dms. c.l., works 100 lbs** 6.70 —
dms. t.c.l., works 100 lbs 7.05 7.65
Hydrated flake bbls., c.l., works 100 lbs 5.65 —
bbls., t.c.l. works 100 lbs 7.60 7.90

**Sodium oxalate 88% bgs. works 100 lbs** 12.35 —
99% bgs. works 100 lbs. 15.40 - —

**Sodium para aminobenzoate (see Sodium p-aminobenzoate)**

**Sodium para aminosalicylate (see Sodium p-aminosalicylate)**

**Sodium pentachlorophenate briquets dms., c.l., works, frt equald** lb 26 —
dms. t.c.l. same basis lb 27½ .34
Pellets dms c.l., same basis lb 26 —
dms. c.l. same basis lb 27½ .34
Powd. dms. c.l. same basis lb 25 —
dms t.c.l. same basis lb 26½ .33

**Sodium pentabarbital, USP. dms. 100 lbs. or more** lb 6.00 —

**Sodium perborate NF, tech., bgs., c.l. works** lb. .18½ —
bgs t.c.l. works lb 19 .21

**Sodium peroxide, dms., c.l., t.l., dlvd E of Miss** lb. .21½ —
dms., t.c.l., same basis lb .22 .22½

**Sodium phenobarbital. USP. 100-lb dms** lb 3.75 —

**Sodium phenosulfonate, USP. IX., gran. dms** lb .52 .53
NF powd dms lb 55 .56

**Sodium phosphate dibasic, anhyd., bgs c.l. frt equald 100 lbs** 8.10 —
bgs., t.c.l., same basis 100 lbs 8.50 9.55

**Sodium phosphate, dibasic, cryst. bgs., c.l., t.l., frt equald 100 lbs** 4.75 —
bgs., l.c.l., frt. equald 100 lbs 5.15 5.90

**Dibasic duohydrate, bgs. c.l. frt equald 100 lbs** 7.75 —
bgs., t.c.l., same basis 100 lbs 8.25 - —

**Monobasic anhyd bgs c.l. frt equald 100 lbs** 9.15 —
bgs., t.c.l., same basis 100 lbs 9.55 10.15

**Tribasic anhyd. bgs c.l. frt equald 100 lbs.** 9.15 —
bgs. t.c.l. frt equald 100 lbs. 9.60 10.20

**Sodium phosphate in dms 60c to 110c higher than bgs**

**Sodium phosphate, USP, dried, powd., bgs., dms., works** lb .19 - .20½

**Sodium pieramate, tech., paste, dms., f.o.b works, frt. equald** lb. .90 - —

**Sodium propionate, any quantity, dms. dlvd E of Rockies.** lb. .37 - —
Prices W of Rockies 3c per lb more.

**Sodium prussiate yellow (see Sodium ferrocyanide)**

**Sodium pyrophosphate, acid, bgs., c.l., works frt equald 100 lbs.** 11.25 —
bgs., t.c.l., same basis 100 lbs. 12.00 -12.50

**Sodium pyrophosphate, ferric, dms., c.l. t.l. works** lb. .38 —
dms. t.c.l. works lb 37 .39

**Tetrabasic, anhyd., bgs., c.l., works frt equald 100 lbs** 7.55 - —
bgs., t.c.l., same basis 100 lbs 8.30 - —

**Sodium salicylate USP dms. 1,000-lbs or more** lb 78½ —
dms. less than 1,000 lbs dms lb. 81½- —

**Sodium sesquicarbonate bgs., c.l., works 100 lbs** 2.35 —
t.c.l., dlvd. zone 1 ..... 100 lbs. 4.10 - 4.35
dlvd zone 2 ..... 100 lbs 4.35 4.60
dlvd. zone 3 ..... 100 lbs 4.75 4.90
dlvd zone 4 ..... 100 lbs 5.35 5.60

Sales zones are (1) All states E. of Miss., R and N of south bound of Ky and Va., Ala., La and Miss south of 31°; Tex E. of 100°; S of 31° Fla., also Me., N H and Vt in which there are special county zones; Davenport Ia., and St Louis; (2) Ark E of 98° Ga.; Iowa (except Davenport) Minn. Mo. (except St Louis) Neb E of 98° N C., S C., Tenn and Tex N of 31 and E. of 100° (except Wichita Falls); also Ala, La and Miss. No of 31°; (3) Ark W of 96° Kan. Neb W. of 98° N D Okla., S D., Tex., W of 100° (including Wichita Falls excluding El Paso); (4) Ariz. Colo., Idaho, Mont. Nev., N. M., Utah. Wyo and El Paso Tex

**Sodium sesquisilicate annyd., bgs., c.l. t.l. works 100 lbs** 5.70 - —
dms. c.l. t.l., works 100 lbs 6.20 - —
hydrated, bgs., c.l., works. 100 lbs. 5.00 - —
bgs. 6,000 19,900 lb lots, works 100 lbs 5.35 - —
dms., c.l., works 100 lbs 5.50 - —
dms. 6,000-19,900 lb lots works. 100 lbs 5.85 - —

**Sodium silicate, liq., 40° Be. 1:3.2, turbid dms. c.l. works 100 lbs** 1.65 —
dms., t.c.l. works 100 lbs 1.90 2.40
tanks. works 100 lbs 1.20 —
47° Be. 1:2.9 turbid, dms., c.l., works 100 lbs 2.25 —
dms., t.c.l., works 100 lbs 2.60 3.45
tanks, works 100 lbs 1.90 —
52° Be 1:2.4 turbid, dms., c.l., works 100 lbs 2.65 —
dms., t.c.l., works 100 lbs 3.00 3.50
tanks. works 100 lbs 2.30 —

**Solid, 1:3.2 bgs. works ton** 67.50 —

**Sodium silicofluoride. bgs., c.l., works** lb. .065 —
bgs., t.c.l., works lb 725- —

**Sodium silicofluoride in dms. 0.4c per lb. higher**

**Sodium stannate. dms. works, frt. alld. E** lb. .678 - .737

**Sodium sulfa drugs (see Sulfa name)**

**Sodium sulfanilate bbls. works** lb. 22 —

**Sodium sulfate NF VII. dried, powd. dms** lb .22½ —

**Tech., anhyd. bgs., c.l. dlvd E ton** 56.00 —

**Tech., detergent, rayon grade, bgs., c.l., works ton** 38.00 - —
bulk, c.l., works ton 34.00 - —

**USP cryst., fib dms** lb 17½- .18

**Sodium sulfhydrate, flake 70-72%, dms. c.l. works, frt equald** lb 07¼ —
dms., t.c.l., same basis lb. 08¼- —

**Liq. 40-44% tanks. works, 100% basis ton** 130.00 —

**Sodium sulfide. flake, dms., c.l., works. E., frt. equald** lb 06 - —
dms. t.c.l., same basis lb 07 - —
Fused, bbls., c.l., works. E., frt. equald lb. .05½- —
bbls. t.c.l. same basis lb 06½- —

**Sodium sulfite, anhyd., tech., bgs., c.l., works 100 lbs.** 3.50 - —
bgs., t.l., same oasis 100 lbs 4.00 - —

**Sodium sulfite anhyd., powd., bgs., c.l., works 100 lbs** 7.55 —
bgs. t.c.l. same basis 100 lbs 7.95 —

**Sodium sulfocyanide. CP (see Sodium thiocyanate)**

**Sodium tetraborate (see Borax).**

**Sodium tetrasulfide, liq. 40%, dms., c.l., works frt equald** lb. 04½- —
dms., t.c.l same basis lb. 05½- —

**Sodium thiocyanate, purified, cryst., 250-lb dms** lb. .90 - —

**Tech. anhyd. dms., 1 ton lots or more, works** lb. .367 - —
dms., less than ton lots, works lb. .387 - —

**Sodium thiosulfate NF cryst. bbls.** lb 13½ —

**Tech. anhyd. 100-lb bgs. c.l., t.l., frt. equald 100 lbs** 7.75 —
100-lb bgs. t.c.l. t.l.t., frt equald 100 lbs 8.15 —
photograde, 64-lb. bgs., c.l., t.l., frt. equald lb. .0775- —
64-lb bgs. t.c.l. t.l.t. frt. equald lb. .0815- —

**Sodium thiosulfate, tech., pentahydrate, photo grade, 100-lb. bgs., c.l., t.l., frt. equald 100 lbs.** 4.95 - —
100-lb. bgs., t.c.l., t.l.t., frt. equald 100 lbs 5.20 —

**Sodium titanate. ctns. c.l., works.** lb. 14¼ —
ctns. 5-ton lots, works lb. 14½ —
ctns., 1-ton lots or less, works lb 14¾- —

**Sodium trichloroacetate. 90%, 100-lb dms., c.l., frt alld E.** lb. .35 —
50-lb dms., c.l., frt. alld. E lb. .35½- —
10-lb cns., c.l. frt alld E lb 42 —
Prices on Sodium trichloroacetate W of the Rockies are 1¾c per pound higher

**Sodium tripolyphosphate. bgs., c.l. works, frt. equald 100 lbs.** 7.90 - —
bgs., t.c.l., same basis 100 lbs 8.65 - —
bulk, hopper cars, same basis. 100 lbs. 7.35 - —

**Sodium trisilicate, powd., 1:3.2, bgs., c.l., works 100 lbs.** 8.95 - —
bgs., t.c.l., works 100 lbs 9.70 -13.13
dms., c.l., works 100 lbs. 9.45 —
dms., t.c.l., works 100 lbs. 10.30 -10.60

**Sodium tungstate, tech., kgs., dlvd. E** lb. 1.32 - —

**Sodium-ammonium phosphate, purif., cryst. dms., works** lb .52 - —

**Sodium-carboxymethyl cellulose (see CMC).**

**Sodium-cinchophen (see Cinchophen-sodium).**

**Sodium formaldehyde sulfoxylate, dms., t.l., dlvd** lb. .22½- —
dms., t.t.l., same basis lb .23 - —

**Sodium-zirconyl sulfate, fib dms., 1,000-lb lots or more works** lb .28 - —
fib dms., smaller lots, same basis lb .30 - —

**Solvent naphtha, coaltar, high-flash, tanks, frt equald** gal. .30 - .35½

**Solvent naphtha, petroleum, straight aromatic, 310°-360° F b.r., 14 16°C m.a.p., tankcars, New Jersey and New York** gal. .29 - —
Houston, Texas gal. .29 - —
355 420° F b.r., 17° 18°C. m.a.p., tankcars, New Jersey and New York. gal. .30 - —
Houston, Texas gal. .30 - —

**Solvent naphtha, petroleum, partial aromatic, 211°-265° F b.r., 31°C m.a.p. tankcars, New Jersey and New York** gal. .235 - —
286°-340° F b.r., 22°C m.a.p., tankcars New Jersey and New York gal .275 - —
310°-380° F. b.r., 27° C. m.a.p., tankcars, New Jersey and New York gal. .27 - —
322-395 F b.r. 28°C m.a.p., tankcars, New Jersey and New York gal .28 - —

**Sorbitan monostearate fib dms. 20,000-lb lots, works** lb. .33½- —
10,000 to 20,000-lb. lots, works. lb. .35½- —
fib dms. smaller lots, works lb. .38½- .40½

**Sorbitan tristearate fib dms. 20,000-lb. lots, works** lb. .34 —
fib dms. 10,000 to 20,000-lb lots, works lb. .36 - —
fib. dms., smaller lots, works lb. .39 - .41

**Sorbitol NF reg., 70% aqueous, dms., c.l., works** lb. .18 - —
dms., t.c.l works lb. .19 - —
tanks, works lb. .16¼- —
cryst. resin grade, pellets, dms., c.l., works lb. .23 - —
dms. 1 to 5-ton lots, works, lb .25 .26
powd., dms., c.l., works lb. .38½- —
dms. 10,000 to 20,000 lb. lots, works lb 40½- —

**Sorbitol, soln., coml., aqueous, dms., c.l., works** lb. .26 - —
dms., t.c.l., works lb. .27 - —
tanks, works lb. .23¼- —

**Soya protein, chemically isolated, old process. bgs., c.l., works.** lb. .23 —
bgs., t.c.l., works lb. .23¼- .23½
Chemically isolated new process, bgs., c.l., works lb. .20 - —
bgs., t.c.l., works lb. .20¼- .29½

**Soybean meal, 44%, bulk, unrestricted, Decatur** ton. 72.50 - —

**Soybean oil, crude, tanks, Decatur,** lb. .12⅞- —

**Foots, soapstock acid 95%, tanks, New York** lb. .07½- —

**Soybean oil, alkali, refd., dms.** lb. .17175- —
tanks lb. .15175- —
Clarified, dms. lb. .16675- —
tanks lb. .14675- —
Salad, refd., dms. lb. .17¼- .17½
tanks lb. .15¼- —

**Soybean oil acids, dbl. dist., dms.,** lb. .16¾- .19¼
tanks lb. .14¼- —
S. D., dms lb. .15½- .18
tanks lb. .13 - —

**Sparteine sulfate, cns., 100 oz. or more** oz. .80 - —

**Spearmint leaves, dom. bls** lb 75 - —

**Spearmint oil, NF, dms** lb. 5.25 - —

**Sperm oil, bleached winter, 45° dms** lb. .1675- .1775
tanks lb. .1475- —
Nat., winter 45° dms lb. .1575- .1675
tanks lb. .1375- —

**Spermaceti wax, blocks, cs** lb. .32 .33
Cakes, cs lb. .33 .34

**Spruce oil, crs., dms.** lb 2.10 3.55

**Squill, white, bls.** lb. .16 .18
Powd., bbls. bxs. lb. .17 .20

**St. John's bread, edible, bls.** lb. .17 —

**Stannic chloride anhyd dms. works** lb. .845 - .867

**Stannic oxide, dms., dlvd.** lb. 1.092 - 1.305

**Stannous chloride anhyd dms. Stannic oxide, dms., dlvd, works** lb. 1.105 - 1.305 — —

**Stannous sulfate, dms., works** lb. 1.102 - 1.142

**Star root (see Helonias root)**

**Stargrass root (see Aletris root.)**

**Stavesacre seed, bgs** lb. .60 .61

**Stearic acid, dbl., pressed, bgs** lb. .18 - .21½
Single-pressed, bgs. lb. .17½- .20
Triple-pressed, bgs. lb. .19¾- .22¼

**Stoddard solvent, petroleum tanks, east coast, New Jersey, New York** gal. .18 —
tanks, Houston gal. .1475- —
tanks, group 3 gal. .12875- —

**Stramonium leaves, bgs.** lb. .16½- .18

**Streptomycin sulfate, bulk** gram. .03 - —

**Strontium bromide, NF, cryst., gran. 150-lb dm. frt. equald** lb. 1.00 - —

**Strontium carbonate, pure dms. 5-ton lots or more, works** lb .35 - —
dms. 1-ton lots, works lb. .37 - —
Tech., dms., works lb. .19 - —

**Strontium chromate fib dms. dlvd.** lb. .48 — —

**Strontium iodide jars, 25-lb lots lb** 3.57 - —

**Strontium nitrate bgs. c.l. works 100 lbs.** 11.00 - —
bgs., t.c.l., works 100 lbs 12.00 - —

**Strontium salicylate NF, dms** lb 1.88 - —

**Strontium sulfate, air floated, 90% 325 mesh bgs. works ton** 56.70 66.15

**Strophanthin G (see Quabain, USP)**

**Strophanthin K bots.** oz 25.00 25.50

**Strophanthus seed, Kombi, biologically tested, bgs** lb. 2.50 3.00

**Styrax gum USP cs** lb 4.50 5.50

**Styrene monomer, polymer grade, 99.6%, dms., c.l., dlvd** lb. .17 - —
dms t.c.l. same oasis lb .19 - —
tanks, frt. equald. lb. .13 - —

**Styrene monomer, tech., 99.3%, dms., c.l., dlvd** lb. .18 - —
dms., t.c.l., same basis lb. .17 - —
tanks, frt. equald lb. .1099- —

**Above prices are escalated for each calendar quarter on the basis of cost of benzene in the range of 31c. to 34c. a gallon and petroleum refining labor.**

**Styrolyl acetate, bots** lb. 1.03 1.10

**Succinic acid, purif., cryst., dms., t.l., frt. alld** lb. .62 - —
dms., t.t.l., same basis lb. .63 - .75

**Succinic anhydride, dms., c.l., t.l., dlvd** lb. .51 - —
dms., t.c.l., same basis lb. .52 - —

**Sucrose, refd., white, bgs. refy E.** lb. .0940- —

**Sucrose acetate, isobutyrate, 90%, dms. t.l., dlvd** lb. .33½- —
dms., t.t.l., same basis lb. .35 - —
tanks, same basis lb. .31 - —
100%, t.l., dms., dlvd, lb. .35½- —
t.t.l., dms., same basis lb. .37 - —

**Sucrose octa-acetate, denaturing grade, 100-200-lb. lots, bgs. t.c.l., works** lb. 1.00 - —

**Sugar (see Sucrose).**

**Sugar cane wax dom., refd., slabs, 80-lb ctns., works** lb. .60 .68
80-lb ctns. spot lb. .65 .75

**Sulfabenzamide, dms.** kilo 8.80 9.90

**Sulfabenzamide-sodium, dms.** kilo 9.00 -10.10

**Sulfacetamide, USP, fib dms** kilo. 6.61 6.83

**Sulfacetamide-sodium USP, fib. dms** kilo 8.15 9.25

**Sulfadiazine. USP. microcrystals, dms** kilo. 23.35 -24.45
USP, powd. dms. kilo. 22.60 -23.70

**Sulfadiazine-sodium, USP. dms** kilo. 24.80 -25.90

**Sulfaguanidine. NF X. dms** kilo 5.50 6.60

**Sulfamerazine, USP, microcrystals, dms** kilo. 23.50 - —

**Sulfamerazine-sodium. USP, powd., dms** kilo. 24.80 25.90

**Sulfamethazine. USP XV microcrystals, dms** kilo. 19.65 -20.75
USP XV. powd., dms kilo. 18.75 -19.85

**Sulfamic acid, cryst. dms., c.l., t.l., works** 100 lbs. 16.00 —
dms. t.c.l., t.t.l., works 100 lbs. 17.50 18.50

**Gran., dms., c.l., t.l., works 100 lbs.** 14.75 —
dms., t.c.l., t.t.l., works 100 lbs. 16.25 -17.25

**Sulfanilamide NF reg. 1,000 lb., fib. dms., frt. equald** lb. 1.75 - —
NF, reg., smaller lots, fib. dms., frt. equald lb. 1.80 - —

**Sulfanilamide quinoxaline, veterinary. dms** kilo. 16.28 - —

**Sulfanilic acid. tech. dms. c.l., frt. alld** lb. .21 - —
dms., t.c.l., frt alld lb. .23 - —

**Sulfapyridine. USP XV, powd., bots., tins** kilo. 15.45 -16.55

**Sulfapyridine-sodium, monohydrate, dms** kilo. 16.55 -17.65

**Sulfathiazole. NF X. microcrystals, dms** kilo. 6.25 6.90
NF X, powd., dms. kilo. 5.50 6.15

**Sulfathiazole-sodium, NF X, dms., 1,000-lb. lots or more** lb. 2.35 —

**Sulfur, coml. flour, bgs., mines. 100 lbs.** 2.35 - —
bbls., mines 100 lbs. 3.30 - —
lump, bgs., mines 100 lbs. 2.25 - —
bbls., mines 100 lbs. 2.80 - —

**Sulfur, crude, dom. bright, bulk, f.o.b. cars, mines long-ton.** 23.50 - —
export, f.o.b vessels, Gulf ports. long-ton. 25.00 - —
US and Canada, f.o.b vessels Gulf ports long-ton. 25.00 - —

**Domestic dark sulfur prices are $1 per long-ton lower**

**Sulfur, crude, imp. Mexican, bulk, filtered, f.o.b., vessel, Coatzacoalcos long-ton.** 24.00 - —

**Mexican dark sulfur price is $1 per long-ton lower.**

**Sulfur, refd., flowers, NF, bgs., mines 100 lbs.** 5.65 - —
bbls., mines 100 lbs. 7.00 - —
flour, light, bgs., mines 100 lbs. 5.25 - —
bbls., mines 100 lbs. 6.25 - —
lump, bgs., mines 100 lbs. 4.95 - —
rolls, bgs., mines 100 lbs. 5.50 - —
bbls., mines 100 lbs. 6.25 - —
salt block, bgs., mines 100 lbs. 4.65 - —
virgin block, bbls., mines 100 lbs. 4.70 - —

**Sulfur, rubbermakers, coml., reg., bgs., mines 100 lbs.** 2.45 - —
bbls. mines 100 lbs. 3.70 - —
98-100%, passing through 325 mesh, bgs. mines 100 lbs. 2.55 - —
bbls. mines 100 lbs. 3.80 - —
Refd., bgs., mines 100 lbs. 4.90 - —
bbls., mines 100 lbs. 6.05 - —
treated, 2.5% mineral oil, bgs., mines 100 lbs. 2.75 - —
bbls. mines 100 lbs. 4.00 - —

**Sulfur dichloride, ret. dms., c.l., works, frt. equald** lb. .05½- —
ret. dms., t.c.l., same basis lb. .06¾- —
tanks, same basis lb. .04½- —

**Sulfur dioxide, liq. coml., cyls., works, frt. equald** lb. .10 - .13
multi-unit cars. works lb. .0535- —
tanks. works lb. .045 - —
refrigeration, cyls., dlvd lb. .33 - —

**Sulfur monochloride, 55-gal. non-ret. dms., c.l., frt. equald** lb. .05½- —
dms., t.c.l., same basis lb. .06¾- —
tanks, same basis lb. .04¼- —

**Sulfuric acid 60° Be, cbys., c.l., works** 100 lbs. 2.00 - —
cbys., t.c.l., works 100 lbs 2.30 - —
tanks, works ton. 18.60 - —

**66° Be, cbys., c.l., works** 100 lbs. 2.25 - —
cbys., t.c.l., works 100 lbs 2.55 3.35
tanks, works ton 22.35 —
98%, tanks, works, East ton. 23.50 - —
99%, tanks, works, East ton. 23.70 - —
100%, tanks, works, East ton. 23.95 - —

**Sulfuric acid, California works, tanks** ton. 26.45 - —

**CP, NF consumers cbys., c.l., frt. equald** lb. .12¾- —
Consumers' cbys., t.c.l., same basis lb. .14¼- .14¾
5-pt. bots. extra. cs., c.l., works, frt. alld lb. .16¼- —
5-pt. bots., extra. cs. t.c.l., same basis lb .17¾- .18¾

**Sulfuric acid fuming (oleum), 20% tanks, works** ton. 25.00 - —
40%, tanks, works ton. 29.00 - —
65% tanks works ton. 39.50 - —

**Superphosphate, run-of-pile under 32% s.p.a., pulv., bulk, c.l., Baltimore unit-ton.** .90 .93
bulk, c.l., Carteret, N. J. unit-ton. .90 .93

| | | | |
|---|---|---|---|
| Superphosphate, triple, 48% or more a.p.a., pulv., bulk, c.l., East Tampa, Fla., unit-ton | | 1.00 | — |
| bulk, f.o.b. vessel at Fla | unit-ton | 1.05 | — |
| Sweet birch oil, USP, northern, cns | lb. | 4.00 | 9.50 |
| USP, southern, cns | lb. | 2.00 | 3.05 |

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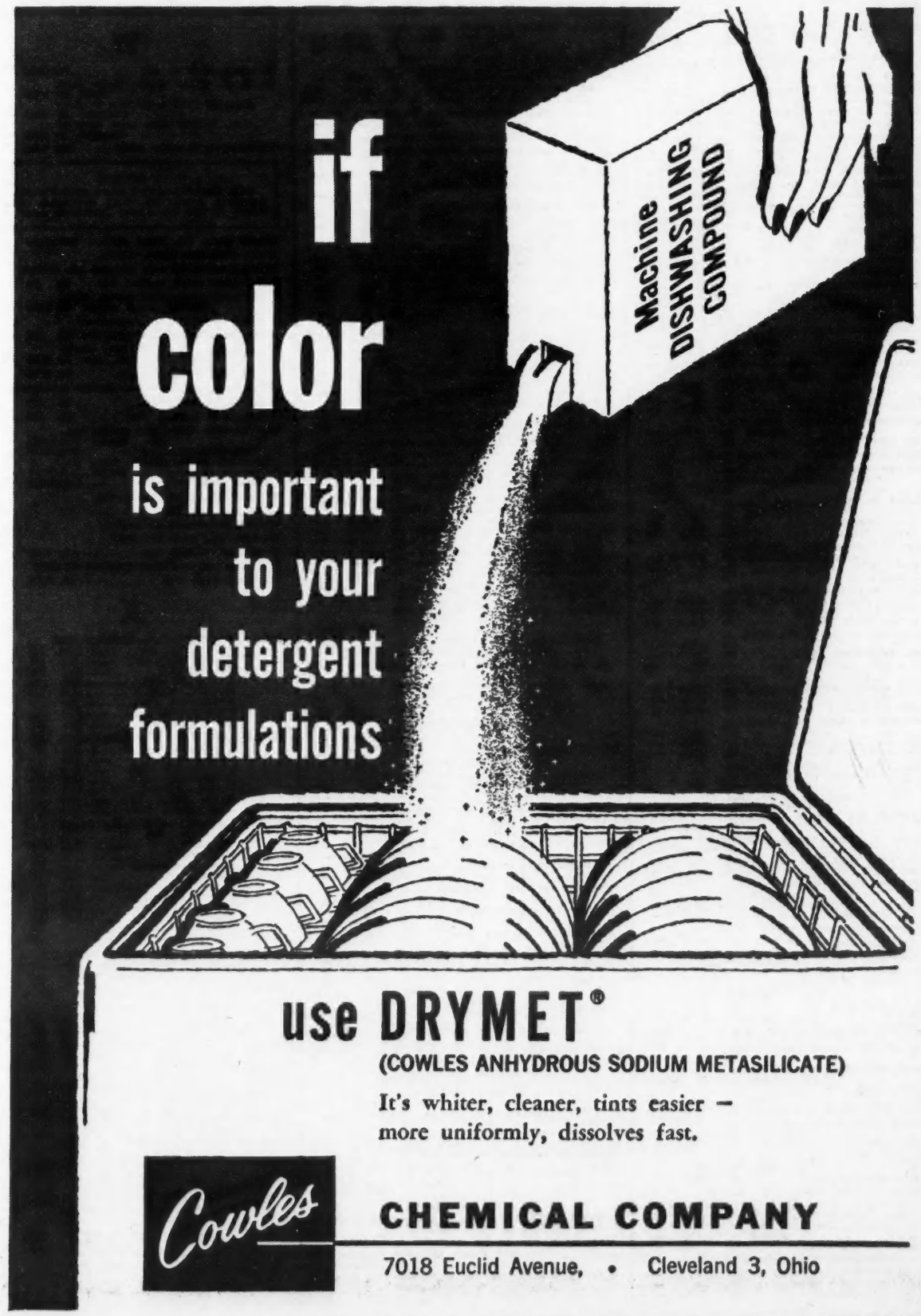
| 2,4,5-T, dms., c.l., works, frt. equald. | lb. | 1.18 | — |
| dms., l.c.l., same basis | lb. | 1.25 | — |
| 2,4,5-T, isopropyl ester, dms., c.l., works, frt. equald | lb. | 1.24 | — |
| dms., l.c.l., works | lb. | 1.29 | — |
| Talc, dom., fibrous, grd., bgs., c.l., works, New York | ton. | 28.00 | — |
| bgs., l.c.l., works | ton. | 31.00 | 36.00 |
| fibrous, 99.5%, 325 mesh, bgs., c.l., works, New York | ton. | 31.00 | — |
| bgs., l.c.l., works | ton. | 34.00 | — |
| Talc, dom., fibrous, 99.95%, 400 mesh, micronized bgs., c.l works | ton. | 38.00 | — |
| 625 mesh, micronized, bgs., c.l. works | ton. | 80.00 | — |
| Talc, dom., ord., Calif., grd., bgs., c.l., works | ton. | 34.00 | 39.50 |
| Vermont, off-color grd., bgs., c.l., works | ton. | 19.40 | — |
| bgs, l.c.l, works | ton. | 37.00 | — |
| imp., Canadian, grd., bgs., c.l., mines | ton. | 20.00 | 35.00 |
| tanks, works | lb. | .02⅞- | .03⅛ |
| Tall oil, crude, tanks, works | lb. | .03¼- | — |
| Dist., depending on grade, dms., c.l., works | lb. | .06½- | .09¼ |
| tanks, works | lb. | .05¼- | .08 |
| Refd., depending upon grade, dms., c.l., works | lb. | .08¾- | .09¾ |
| tanks, works | lb. | .07½- | .08½ |
| Tall oil acids, dms., c.l., works | lb. | .07 | .10 |
| dms., l.c.l., works | lb. | .07½- | .10½ |
| tanks, works | lb. | .05 | .07½ |
| Tallow, edible, tanks, dlvd. | lb. | .10½ | Nom. |
| Inedible, fancy, bleachable, tanks, | lb. | .08 | .08⅛ |
| fancy guaranteed, bulk, f.o.b. steamer | lb. | .08½- | .08⅝ |
| dms., f.a.s. | lb. | .09½- | — |
| tanks, dlvd. | lb. | .08¼- | .08⅜ |
| No. 1, dlvd | lb. | .07½- | .07⅝ |
| Prime, tanks, dlvd | lb. | .07¾- | .07⅞ |
| Special tanks, dlvd. | lb. | .07⅝- | .07¾ |
| Sulfonated, 25%, bbls., l.c.l | lb. | .08½- | .08¾ |
| 50%, bbls., l.c.l | lb. | .10½- | .11 |
| Tallow acids, dist., dms | lb. | .14½- | .17 |
| tanks | lb. | .12 | — |
| Hydrogenated, dms | lb. | .16¾- | .19¼ |
| Tallow oil, acidless, dms., c.l. | lb. | .14 | — |
| dms., l.c.l. | lb. | .16 | — |
| tanks | lb. | .12½- | — |
| Tangerine oil, Florida, dms | lb. | 4.75 | — |
| Tankage, animal, feeding, 9-11% ammonia New York bulk, unit-ton | | 4.75 | 5.00 |
| Tannic acid NF fluffy, bbls., 1,000-lb lots | lb | 2.05 | — |
| bbls., smaller lots | lb | 2.06 | 2.07 |
| powd., bbls., 1,000-lb. lots | lb. | 1.95 | — |
| bbls, smaller lots | lb | 1.96 | 1.99 |
| Tech., dms | lb. | 1.05 | — |
| Tansy oil, dms | lb. | 6.60 | 8.00 |
| Tar acid oil, 15-18%, dms., c.l., dms., l.c.l., same basis | gal. | .55½- | — |
| tanks, same basis | gal. | .43½- | — |
| 25-28%, dms., c.l., frt. equald basis | gal. | .53½- | — |
| dms., l.c.l., same basis | gal. | .62 | — |
| tanks, same basis | gal. | .50 | — |
| 50-53% dms, c.l., same basis | gal. | .75 | — |
| dms., l.c.l., same basis | gal. | .77 | — |
| tanks same basis | gal. | .65 | — |
| Tar coal (see Coaltar) | | | |
| Tartar emetic (see Antimony potassium tartrate). | | | |
| Tartaric acid NF 100-lb bgs., c.l., frt. equald | lb. | .41 | — |
| bgs., 10,000 lbs. 1 shipt., same basis | lb. | .43 | — |
| bgs., smaller lots, same basis | lb. | .47 | — |
| Terpine hydrate, NF, cryst., powd., 100-lb. fib. dms | lb. | .70 | — |
| Terpineol, extra, dms | lb. | .50 | .60 |
| Prime, dms. | lb. | .40 | .50 |
| Terpinyl acetate, extra, cns., dms. | lb. | .64 | .75 |
| Prime, dms | lb. | .53 | .56 |
| Terpinyl propionate dms | lb. | 1.63 | 1.70 |
| Testosterone, USP, bots. | gram. | No prices. | |
| Testosterone propionate, USP bots. | gram. | No prices. | |
| Tetrachloroethane, dms., works | lb. | .14½- | — |
| Tetrasodium pyrophosphate (see Sodium pyrophosphate). | | | |
| Tetrachloroethylene, tech. (see Perchloroethylene). | | | |
| Tetrachloroethylene, USP, 55-gal. dms., c.l., t.l., works | lb. | .20½- | — |
| dms., l.c.l., works | lb. | .22 | .23⅛ |
| Tetraethyl orthosilicate dms., c.l., dlvd. E | lb. | .60 | — |
| dms., l.c.l. dlvd. E | lb. | .61½- | — |
| Tetraethyl pyrophosphate, 40%, cns., dms., frt equald | lb. | .75 | — |
| Tetraethylenepentamine dms., c.l., dlvd. E | lb. | .53½- | — |
| dms., l.c.l., dlvd. E | lb. | .55 | — |
| tanks, dlvd. E | lb. | .51 | — |
| Tetraethylthiuram disulfide, tech., dms., frt. alld | lb. | 1.04 | — |
| Tetrahydrofuran, dms. c.l., t.l., works | lb. | .36½- | — |
| dms., l.c.l., or t.t.l., works | lb. | .37 | — |
| tanks, works | lb. | .35 | — |
| Tetrahydrofurfuryl alcohol, dms., c.l., t.l., Memphis, Tenn. | lb. | .31½- | — |
| dms., l.c.l., Memphis, Tenn | lb. | .32½- | — |
| dms., c.l., t.l., Newark, N.J | lb. | .33½- | — |
| Tetrahydrofurfuryl alcohol, dms., l.c.l., Newark, N. J | lb. | .23½- | — |
| tanks, dlvd. E. of Denver | lb. | .25 | — |
| tanks, dlvd. W. of Denver | lb. | .26 | — |
| Tetrahydrophthalic anhydride dms., c.l. t.l., frt. alld. E | lb. | .39 | — |
| l.c.l., t.t.l., same basis | lb. | .41 | — |
| Tetrapotassium phosphate (see potassium phosphate) | | | |
| Thallium metal, dlvd | lb. | 7.50 | 10.00 |
| Thallium sulfate, 99%, bots., dlvd. | lb. | 5.00 | 10.00 |
| Theobromine, NF, fib dms., 100-lbs., f.o.b., works | lb. | 4.10 | 4.15 |
| Theobromine and sodium acetate, USP, fib dms., 500-lbs. works | lb. | 5.45 | — |
| Theobromine, sodio-salicylate, NF, fib dms., 500-lbs., works | lb. | 3.80 | — |
| Theophylline, USP, anhyd., 100-lb. dms., frt alld | lb. | 3.65 | — |
| Thiamine hydrochloride, USP, fib. dms., frt alld | kilo. | 36.00 | — |
| USP, ampule grade, fib., dms., frt alld | kilo. | 38.00 | — |
| Thiamine mononitrate, USP, fib. dms., frt. alld | kilo. | 36.00 | — |
| Thiocarbanilide, dms., ton lots | lb. | .74 | — |
| dms., less ton lots | lb. | .76 | — |
| Thiodiphenylamine (see Phenothiazine). | | | |
| Thioflavin green toner, brilliant, molybdated, PMA, kgs., works | lb | 5.20 | — |
| Tungstated, PTMA, kgs., works | lb | 6.20 | — |
| Thioglycolic acid, refd., 55 gal dms., ton lots, 100% basis | lb | 1.15 | — |
| Thiosalicylic acid, 80%, dms., 1,000-lb., lots, works | lb | 4.00 | — |
| Thiourea, tech., bgs., t.l. frt. alld. | lb. | .30 | — |
| bgs., ton lots, same basis | lb. | .32 | — |
| bgs., less than ton lots, same basis | lb. | .33 | — |
| Thorium nitrate, purif., fib dms., 100-lb lots or more, works | lb | 3.50 | — |
| dl-Threonine, dms., 25 kilos, works, | kilo. | 115.00 | — |
| Thyme leaves, French, triple sifted extra, bgs | lb. | .27 | — |
| Spanish, extra, bgs | lb. | .12 | — |
| triple sifted, bgs. | lb. | .25 | — |
| Spanish, bgs. | lb | .09 | — |
| Thyme oil, NF, red, cns., dms. | lb. | 3.35 | 3.60 |
| NF, white, cns | lb. | 3.60 | 3.95 |
| Tech., white, cns | lb. | .80 | 1.10 |
| Thymol, fib dms., 25-lbs., f.o.b. works | lb | 2.45 | — |
| Thymol iodide NF, dms. 100-lbs f.o.b. works | lb | 7.30 | — |
| Timbo root (see Cube root) | | | |
| Tin chloride (see Stannous chloride, anhyd.) | | | |
| Tin crystals (see Stannous chloride, hydrous) | | | |
| Tin metal (Straits) | lb. | 1.09 | — |
| Tin oxide (see Stannic oxide) | | | |
| Tin sulfate (see Stannous sulfate). | | | |
| Tin tetrachloride anhyd. (see Stannic chloride, anhyd.). | | | |
| Titanium dioxide, anatase, ceramic, bgs., c.l., dlvd | lb. | .25½- | — |
| bgs., l.c.l., dlvd. | lb. | .26½- | — |
| reg., bgs., c.l., dlvd. | lb. | .25½- | — |
| bgs., l.c.l. dlvd. | lb. | .26½- | — |
| metallurgical, nat., bgs., c.l., f.o.b Jacksonville Fla. | ton. | 180.00 | — |
| Titanium dioxide, metallurgical, nat., bgs., 5-ton lots, Niagara Falls, N. Y. | ton. | 205.00 | — |
| bgs., ton lots, same basis, | ton. | 215.00 | — |
| Milled metallurgical titanium dioxide $7.50 per ton higher | | | |
| Titanium dioxide, rutile, nonchalking, bgs., c.l., dlvd. E | lb. | .27½- | — |
| bgs. l.c.l., dlvd E | lb. | .28½- | — |
| Titanium dioxide-calcium pigment, 30% Ti $O_2$, reg., bgs., c.l., dlvd | lb. | .09¾- | — |
| bgs., l.c.l., works | lb. | .09⅞- | — |
| 50% Ti $O_2$, high-tinting, dms., c.l. | lb. | .14⅜- | — |
| dms. l.c.l. | lb. | .14⅞- | — |
| Titanium hydride, powd., dms., works | lb. | 8.10 | 9.00 |
| Titanium tetrachloride, tech., dms., c.l., works | lb. | .26 | — |
| dms., l.c.l., works | lb. | .27½- | .29 |
| tanks, works | lb. | .20 | — |
| Tobias acid, dms., c.l., t.l., 20,000 min., f.o.b. plant, frt. alld. E | lb. | .81 | — |
| dms., l.c.l., l.t.l., 5,000 lbs- 19,999 lbs., same basis | lb. | .81½- | — |
| dms., l.c.l., l.t.l., less than 5,000 lbs., same basis | lb. | .84 | — |
| For west coast delivery add 2c. per lb. | | | |
| d-a-Tocopherols, NF, mixer, conc., pure basis, bots | kilo. | 67.00 | — |
| d-a-Tocopheryl acetate, NF, conc., pure basis, bots | kilo. | 122.00 | — |
| d-a-Tocopheryl acid succinate, cryst., bots | kilo. | 109.00 | — |
| dl-a-Tocopherol bots. | kilo. | 99.00 | — |
| dl-a-Tocopheryl acetate, bots | kilo. | 90.00 | — |
| 25% dry powd., bots | kilo. | 22.50 | 24.00 |
| 33% dry powd., bots. | kilo. | 30.00 | 31.50 |
| o-Tolidine base dry, kgs., 100% basis | lb | 1.55 | — |
| Paste, kgs., 100% basis | lb | 1.50 | — |

**TOLUOL**

Toluol quotations, both coaltar and petroleum, may be found under Toluene.

| | | | |
|---|---|---|---|
| o-Tolidine hydrochloride paste, kgs., 100% basis | lb | 1.50 | — |
| Tolu balsam, cns | lb. | 4.00 | — |
| Toluene, coaltar, indust., or nitration, tanks, dlvd. E. of Rockies | gal. | .25½- | — |
| Toluene, petroleum, indust., tanks, f.o.b., frt. equald | gal. | .25 | — |
| p-Toluenesulfonamide, powd., dms., t.l., works | lb. | .60 | — |
| dms., l.t.l., same basis | lb. | .63 | — |
| Toluenesulfonic acid, 55-gal. dms., t.l., frt. alld | lb. | .16 | — |
| 1,000-lb. or more, same basis | lb. | .18 | — |
| less than 1,000-lb., same basis | lb. | .23 | — |
| tanks, same basis | lb. | .14 | — |
| Toluenesulfonic acid in 10-gal. dms., 2c. per lb. more. | | | |


use DRYMET®

(COWLES ANHYDROUS SODIUM METASILICATE)

It's whiter, cleaner, tints easier — more uniformly, dissolves fast.

Cowles CHEMICAL COMPANY

7018 Euclid Avenue, • Cleveland 3, Ohio

p-Toluenesulfonic acid monohydrate, dms., c.l., or t.l. lb. .90 - —
dms., 125 lbs. to t.l. lb. 1.00 - —
m-Toluidine, dms., c.l., works, frt. alld lb. .83 - —
dms., l.c.l., same basis lb. .84 - —
tanks, same basis lb. .82 - —
o-Toluidine, dms., c.l., works, frt. alld lb .30 - —
dms., l.c.l., same basis lb .31 - —
tanks, same basis lb .28 - —
p-Toluidine, tech., flake, dms., frt. alld lb. .50 - —
Cast, dms., frt. alld. lb. 45 - —
p-Toluidine-m-sulfonic acid, dms., works lb. .92 1.04
Toluidine red toner, deep shades, kgs., works lb. 1.70 - —
Light shades, kgs, works lb. 1.70 - —
2,4-Tolylenediamine, cryst., fib. dms., t.c.l., frt. alld lb. 1.10 - —
Tonka beans, Angostura, cks. lb 1.50 - —
Brazilian, Surinam, cs. lb 1.30 - —
Totaquine, 100-oz. lots, cns. oz. .42 - —
Toxaphene, dms., c.l., t.l., works. lb .22 - —
dms., l.c.l., t.l.l., works lb .28 - —
Tragacanth gum, No. 1, ribbons, cs lb 4.10 4.20
No 2, cs. lb 3.75 3.80
No. 3, cs. lb 3.40 3.65
USP. powd., bbls. lb 1.05 1.15
Triacetin, dms., c.l., dlvd. E. of Rockies lb. .38 - —
dms., l.c.l., same basis lb. .39½- —
works, same basis lb. .35½- —
Triallylamine, dms., c.l., dlvd lb .985 - —
dms., l.c.l., dlvd. lb. .995 - —
tanks, dlvd lb. .96 - —
Tributyl citrate, tech., non-ret. dms., c.l., frt. alld E of Denver. lb. .42½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .43½- —
tanks, frt. alld E. of Denver lb. .40 - —
Tributyl phosphate, dms., c.l., works. lb. .52½- —
dms, l.c.l., same basis lb. .53½- —
tanks, same basis lb. .50 - —
Tributylamine dms., c.l., works lb. .67½- —
dms., l.c.l., same basis lb. .69 - —
tanks, same basis lb. .65 - —
Tributyrin dms. l.c.l., dlvd. lb. .69 - —
Trichloroacetic acid, tech., 300-lb. dms. c.l., f.o.b works lb .52 - —
USP, 100-lb dms., frt. equald lb. 1.25 - —
Trichlorobenzene dms. c.l., frt alld E lb .15 - —
dms., l.c.l. frt. alld. E. lb .16 - —
tanks, frt. alld. E. lb 13¼- —
Trichlorobenzene prices in the West 1¾c. higher.
1,1,1-Trichloroethane, dms., c.l., dlvd. lb .13¼ —
dms., l.c.l., dlvd lb. .16 - —
tanks, dlvd lb .12¼ —
1,1,2-Trichloroethane, dms., c.l., works lb. .15½- —
dms., l.c.l., works lb. .16¼- —
tanks, works lb. .13½- —
Trichloroethylene dms., c.l., or t.l., dlvd lb. .12½- —
dms., l.c.l., dlvd. lb. .14 .14½
tanks, dlvd. lb. .11¼- —
Trichloroisocyanuric acid dms., c.l., t.l., frt. equald lb .65 - —
dms. l.c.l. same basis lb 75 - —
Trichlorophenoxyacetic acid (see 2,4,5-T).
Tricholine citrate, 65% soln., ret. chys., works, frt adjusted. lb 1.40 1.45
Tricresyl phosphate, coaltar, dms., c.l., dlvd lb .35 - —
dms., l.c.l., dlvd. lb .36 - —
tanks, dlvd lb .32½- —
Tricresyl phosphate, petroleum, dms., c.l., dlvd lb. .35 - —
dms., l.c.l., dlvd. lb. .36 - —
tanks dlvd. lb. .32½- —
Tridecyl alcohol, mixed isomers, dms., c.l., dlvd. E lb. .26½- —
dms., l.c.l., dlvd. E lb. .28 - —
tanks, dlvd E lb. .24 - —
Triethanolamine dms., c.l., dlvd E. lb. .24½- —
dms., l.c.l., same basis lb. .26 - —
tanks, same basis lb .22 - —
Triethanolamine lauryl sulfate, dms., c.l., t.l., frt. alld lb .25½ —
dms. l.c.l. frt. alld. lb .26½- —
tanks, frt alld. lb .24½- —
Triethylamine, dms., c.l., dlvd E. lb .50 - —
dms., l.c.l., same basis lb .51½- —
tanks, same basis lb. .47½- —
Triethyl citrate, refd., tech., non-ret dms., c.l., frt. alld E. of Denver lb. .46¼- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .47¼- —
tanks frt alld. E of Denver. lb. .43¾- —
Triethyl phosphate, dms., c.l., dlvd. lb. .40½- —
dms., l.c.l., dlvd. lb. .42 - —
tanks, dlvd. lb. .38 - —
Triethylene glycol, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E lb. .22½- —
tanks, dlvd. E lb. .18½- —
Triethylenetetramine, dms., c.l., dlvd. E lb .51½- —
dms., l.c.l., dlvd. E lb .53 - —
tanks, dlvd E lb. .49 - —
Triisobutylene, tanks, dlvd. lb. .08 - —
Tri-isopropanolamine, dms., c.l., dlvd. E lb. .23¼- —
dms., l.c.l., dlvd. E lb. .24¾- —
tanks, dlvd E lb. .20¾- —
Trimethylamine, anhyd., cyls., l.c.l., frt. equald, 100% basis lb. .30 .305
tanks frt equald, 100% basis. lb. .26 - —
25-40% soln. dms., c.l., frt. equald, 100% basis lb. .35 - —
dms., l.c.l. frt. equald, 100% basis lb. .35¼- —
tanks, 100% basis, frt. equald lb. .26 - —
Trimethylolpropane, dms., c.l., t.l., dlvd. E lb. .30½- —
dms., l.c.l., l.t.l., same basis lb. .31½- —
Trioxanes, pure, dms., c.l., t.l., works lb. .50 - —
dms., l.c.l., works lb. 51½- —
Tripentaerythritol, bgs., c.l., t.l., dlvd. E lb. .34 - —
bgs., l.c.l., l.t.l., dlvd. E lb. .35 - —
Triphenyl phosphate, bbls., c.l., frt. equald lb. 41½- —
bbls. l.c.l. frt. equald lb 43½- —
Triphenylguanidine, bbls., works lb. .90 - —
Tripropylene dms., c.l., dlvd E gal. .44 - —
dms., l.c.l., same basis gal .54 - —
tanks, same basis gal. .28 - —

Tripropylene glycol, dms., c.l., t.l., frt. alld. E lb. .20½- —
dms., l.c.l. l.t.l. frt. alld. E lb. .22 - —
tankcars and compartmented tankcars, frt alld E lb. .17½- —
tankwagon and compartmented tankwagon, 1,000 gals., min. frt. alld. E lb. .18 - —
Tripropylene glycol prices 1c. per lb. higher in west.
Trisodium phosphate (see Sodium phosphate tribasic).
dl-Trypophane, dms., 1 kilo, works. kilo.154.00 —
Tung oil, dms., New York lb. .27½- .27¾
tanks, imported lb. .26 - —
tanks, domestic, mills lb. .26 Nom.
Tungsten metal powd. 2.0-2.5 microns, dms., works lb 4.25 —
Tungstic acid, tech., dms., 1,000-lb. lots, works lb 2.25 - —
dms., smaller lots, works lb 2.45 - —
Turkey red, bbls, works lb. .62 —
Turpentine, gum (see Protective Coatings market, Naval Stores).
Turpentine oil, NF, cns., dms lb. .28 .50
Tuscan red bbls. frt equald lb 26 .32
Tyrothricin, USP, 1 to 5 kilos gram .50 - —

## U

Ultramarine blue, cobalt type, dry or pulp 250-lb. bbls., dlvd. E. of Rockies lb. .30½- .35
Ultramarine blue, jobbing types, dry, bbls., same basis lb. .16 - .22½
Regular types, dry bbls, same basis lb .16 .37½
Ultramarine blue prices 1c higher W of Rockies.
Umber pigment, burnt, American, bgs., c.l., works lb. .07½ .07¾
bgs., l.c.l. works lb. .07¾- .08
turkey-type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N.Y. lb. .08¼- —
Raw, American, bgs. works lb. 07¾ 08¼
Turkey-type, bgs. works lb 08½ 08¾
Undecylenic acid 55-gal dms., f.o.b. works lb. 1.28 - —
Unicorn root, false (see Helonias root).
Unicorn root, true (see Aletris root).
Urea, 46% N, indust. bgs., c.l. t.l., f.o.b plant ton.100.00 - —
Feed grade, c.l., t.l., f.o.b. plant, ton.95.00 - —
45% N, agricultural, bgs., c.l. f.o.b. plant ton.92.50 - —
Bulk, c.l., t.l., same basis ton.86.50 - —
Urea-ammonia liquor A, B, C & F grades, N basis, tanks, frt equald ton.120.00 - —
37 grade, tanks, same basis ton.145.00 - —
Urethane, USP, dms., t.l., f.o.b., works lb .65 - —
dms., l.t.l., same basis lb 70 - —
Uva-ursi leaves, bls lb. .12 - —

## V

Valerian root, Belgian bgs. lb .32 - —
Indian, bgs lb 25 - —
dl-Valine, dms., 1 kilo, works kilo.37.00 - —
Vanadium pentoxide, tech, dms, works lb. 1.38 - —
Vandyke brown, bbls., works lb. 09½- .12
Vanilla beans, Bourbon, tins lb. 6.95 - 7.10
Mexican cuts, tins lb. 7.10 - 7.40
whole, tins lb. 7.50 - 8.50
Vanillin ex lignin, 100-lb. fib. dms., 2,000-lb. lots or more lb. 3.00 - —
less than 2,000 lbs lb. 3.20 3.30
Venetian red, jobbing, bgs. works. lb. .0475- —
Venetian red, 20%, bgs., works lb. .0525- —
25%, bgs., works lb. .0575- —
30%, bgs., works lb. .06 —
35%, bgs., works lb .0625- —
40%, bgs., works lb .0675- —
Vetiver oil, Bourbon, cns lb.17.00 -17.25
Haitian, cns. lb.12.00 -14.00
Victoria blue toner, molybdated, PMA 250-lb. bbls., dlvd. E. of Rockies lb. 4.50 4.95
Tungstated, PTMA, 250-lb bbls., dlvd. E. of Rockies lb 5.55 —
Victoria blue toner, bbls. prices 1c. higher W of Rockies
Vinyl acetate monomer, zone 1, 55-gal. dms., c.l., dlvd lb. .1810- —
55-gal. dms. l.c.l., dlvd lb. .1960- —
tanks, dlvd. lb. .1560- —
tanktrucks less than 4,000 gal., dlvd lb. .1610- —
Vinyl n-butyl ether, tech. dms., l.c.l., works lb. .50 - —
Vinyl chloride monomer tanks, works, min. frt. equald E. lb. .0896- —
Vinyl ether, USP, anethesia, bots., 50cc., hospitals bot 1.12 - —
bots., 75cc., hospitals bot 1.56 - —
Vinyl ethyl ether tech. dms., c.l., works lb. .30¼- —
dms., l.c.l., works lb. .31 - —
tanks, works lb. .28¼- —
Vinyl propionate monomer, dms., c.l., dlvd lb. .49 - —
dms., l.c.l., same basis lb .50 - —
tanks, same basis lb. .47 - —
Vinyl trichloride (see Trichloroethane).
2-Vinylpyridine, 10 dms. to tanks, works lb 1.20 - —
1 to 9 dms., works lb 1.35 - —
tanks, works lb 1.15 - —
Vinyltoluene, dms., c.l., f.o.b., dest. frt. paid, Zone 1 lb. .16½- —
dms., l.c.l., same basis lb. 18½ —
tanks, same basis lb. .14 - —
Zone 2 prices are 1c. per lb. higher. Zone 1 is East of Rockies, Zone 2 is West of Rockies.
Viosterol in nat. vegetable oil, 1,000,000 D units per gram, bots., lots of 10 billion USP units 1,000,000 units. 02½- —
Virginia type red, bbls., works lb 1.40 —
Vitiamin A acetate, syn., cryst., beads, 500,000 A units per gram gram 07¼- —
Vitamin A acetate, dry, 500,000 units per gram, kilo lots kilo.65.00 - —
325,000 units per gram, same basis kilo.43.88 - —
250,000 units per gram, same basis kilo.33.75 —
Dry vitamin A acetate in less than kilo lots, $1.25 to $2.50 per kilo higher
Vitamin A, liq in oil, 1,000,000 A units per gram 1,000,000 units. .09½- —
Vitamin A palmitate, liq., 1,000,000-1,800,000 A units per gram 1,000,000 units. .09½- —

Vitamin $B_1$ (see Thiamine hydrochloride).
Vitamin $B_2$ (see Riboflavin and Yeast).
Vitamin $B_{12}$, cryst., USP (cyanocobalamin), 1-50 grams, vials, tins gram.45.00 - —
Vitamin $B_{12}$, 0.1% vitamin $B_{12}$, USP, adsorbed on gelatin, 100 and 500-gram bots on 1-5 kilo, dms., gram. .57 - —
Vitamin $B_{12}$, 0.1% vitamin $B_{12}$, USP, adsorbed on resin, 100 and 500-gram bots., 1-5 kilo dms., gram. .57 - —
Vitamin $B_{12}$, oral grade solids in containers of 1 and 10 gram of $B^{12}$ activity gram.52.00 - —
0.1% trituration of cryst., $B_{12}$ with dicalcium phosphate or mannitol, 1-10 kilo.52.00 - —
0.1% trituration of cyanocobalamin, USP, with dicalcium phosphate or mannitol gm.52.00 - —
USP solution of cyanocobalamin (5,000 micrograms per cc.), 5-gram bots gram.52.00 - —
Vitamin $B_{12}$, 0.1% cobalamin concentrate, NF, adsorbed on resin 500-gram bots. 1-5 kilo dms., frt. alld gram. .57 - —
Vitamin $B_{12}$, 0.1% cobalmin concentrate in gelatin, 1-10 kilo, dms., frt. alld gram. .57 - —
Vitamin C (see Ascorbic acid).
Vitamin $D_2$ (see Codliver and Fishliver oils, Calciferol and Viosterol).
Vitamin D, dry, 850,000 units per gram, kilo lots kilo.42.50 - —
850,000 units per gram less than kilo lots kilo.45.00 - —
Vitamin E (see a-Tocopherol and Wheat germ oil).
Vitamin H (see Biotin).
Vitamin K, active (see Menadione).
Vitamin $K_1$, 25-gram lots gram. 4.50 - —
Violet methyl toner (see Methyl violet toner).
VM&P naphtha (see Naphtha, VM&P, petroleum).

## W

Wahoo root bark, bls. lb. 2.00 2.25
Warfarin, 0.5%, dms. 50-lb. lots, dlvd lb 1.95 - —
dms. 25-49-lb lots, New York or Chicago lb 2.05 - —
dms. 5-24-lb lots, New York or Chicago lb 2.15 - —
Watchung-type reds, bbls lb. 1.85 - —

**WAXES**
**Wax quotations are listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.**

Wheat germ oil, 5-gal. dms. gal.12.25 —
White lead (see Lead, white).
White mineral oil (see Mineral oil, white).
White pine bark, rossed, bls. lb .21 - .22
White precipitate USP, powd., dms., 100 lbs. f.o.b works lb 5.50 - —
Whiting (see Calcium carbonate)
Wild cherry bark, thin, nat., bls lb. .30 - —
Wintergreen oil, USP nat northern, cns lb. 6.35 -17.50
USP, nat. southern cns lb. 3.75 7.00
Wintergreen oil, syn. (see Methyl salicylate).
Witch hazel bark, bls lb. .30 - .35
Witch hazel leaves, bls lb. .75 - .80
Wollastonite fine paint grade, bgs., c.l., works ton.41.00 - —
bgs., l.c.l., ex whse ton.51.00 - —
medium paint grade, bgs., c.l., works ton.29.00 - —
bgs., l.c.l., ex whse. ton.39.00 - —
Wood alcohol (see Methanol).
Wood oil (see Tung oil).
Woolfat crude (see Degras).
Woolfat USP (see Lanolin).
Wormseed Levant bgs lb. 2.50 - —
Wormseed oil (see Chenopodium oil NF).
Wormwood oil, cns lb. 4.75 - —

## X

Xylene, coaltar, indust., tanks, works:
Bethlehem, Pa. gal. .29 - —
Birmingham dist. gal. .29 - —
Chicago dist. gal. 28½- —
Cleveland dist. gal. .29 - —
Geneva, Utah gal. .29 - —
Johnstown, Pa. gal. .29 - —
Lackawanna, N.Y. gal. 29½- —
Lone Star, Tex gal .27 - —
Xylene, coaltar, Lorain, Ohio gal. .29 - —
Middletown, Ohio gal. .30 - —
Minnequa, Col. gal. .29 - —
Philadelphia dist. gal. .29 - —
Pittsburgh dist. gal. .29 - —
Sparrows Point, Md. gal. .29 - —
Terre Haute, Ind. gal .29 - —
Youngstown, Ohio gal. .29 - —
Xylene, petroleum, indust., tanks f.o.b works:
Bayonne, N. J gal. .29 - —
Baytown, Tex. gal. .27 - —
Charleston, S. C. gal. .29 - —
Chicago, Ill gal. 28½- —
Detroit, Mich., dlvd gal. 27½- .29
Houston, Tex. gal. .27 - —
Philadelphia, Pa. gal. .29 - —
Providence, R. I. gal. .30 - —
Sewell's Point, Va. gal. .28 - —
Wood River, Ill gal. 28½- —
m-Xylene, 95%, dms., c.l., f.o.b., Richmond, Calif lb. .21 - —
dms., l.c.l., f.o.b., Richmond, Calif lb. .22 - —
tanks, frt. alld. lb. .19 - —
o-Xylene, dms., c.l., works lb. .08 - —
dms., l.c.l., works lb. .09 - —
tanks, works lb. .06 .06½
p-Xylene, dms., c.l., works lb. .20 - —
dms., l.c.l., works lb. .21 - —
tanks, frt. alld lb. .1645- —
Xylenol, cryst., 45°-47°C., m.p., dms., l.c.l., works, frt. equald lb. .23 - —
56°-58°C., m.p., dms., l.c.l., works, frt. equald lb. .33 - —
60°-62°C., m.p., dms., l.c.l., same basis lb. .40 - —
Xylenol fraction, b.r 7°-9° C., dry above 227° C., dms., c.l., same basis gal. 1.25 - —
dms., l.c.l., same basis gal. 1.30 - —
tanks, same basis gal. 1.05 - —
b.r. 7°-9° C., dry at or below 227° C., dms. c.l. same basis gal. 1.35 - —
Xylenol fraction, b.r 7°-9° C., dry at or below 227° C., dms., l.c.l. same basis gal. 1.40 - —
2,4-Xylidine, tech., dms., frt. alld. lb. 1.15 - —
2,5-Xylidine, tech., dms., frt. alld. lb. 1.20 - —
Xylidines, mixed, o-m-p, dms., c.l., or t.l., works lb. .38 - —
dms., l.c.l., same basis lb. .40 - —
tanks, same basis lb. .38 - —

**XYLOL**
**Xylol quotations, both coaltar and petroleum, may be found under Xylene.**

## Y

Yara yara oil, cns. lb. 2.15 - 3.05
Yeast, brewers, debittered, USP XV, Saccharomyces, dlvd lb. .27 - —
primary, USP XV, 150 mcg. $B^1$ per gram, 100-lb. dms lb. .47 - —
USP XV, 270 mcg., $B_1$ per gram, 100-lb. dms lb. .53 - —
Yeast, brewers, primary, USP, XV, 300 mcg., $B_1$ per gram, 100-lb. dms lb. .56 - —
Yeast, brewers, USP XV, 900 mcg, $B_1$ per gram, 100-lb. dms. lb. .60 - —
Torula, USP dlvd. lb. .18 - —

**YELLOW PIGMENTS**
**Yellow pigment quotations are listed individually. For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow**

Yerba santa leaves, bls. lb. .40 .45
Ylang Ylang oil, Bourbon, bots lb. 7.00 -22.00
extra, bots lb.24.00 -33.00
Yohimbine hydrochloride, bots., tins. oz. 3.75 4.25

## Z

Zein, 50-lb. bgs., c.l., t.l., f.o.b. works lb. .37 - —
50-lb. bgs., smaller lots, f.o.b. works lb. .41 - .44
Zinc acetate, NF, VIII, dms lb. .53 - —
Tech., dms., l.t.l., works lb. .2950- —
Zinc borate bgs., 1,000 lbs or more, works lb. .25 - —
bgs. less than 1,000 lbs., same basis lb. .27 - —
Zinc chloride, NF, gran., dms lb. .42 - —
NF, precip., powd., dms lb. .26 - —
Tech., soln. 50%, dms., c.l., works 100 lbs. 5.80 - —
dms., l.c.l., works 100 lbs 6.40 - —
tanks, works 100 lbs. 5.15 - —
fused dms. c.l., works 100 lbs.10.70 - —
dms., l.c.l., works 100lbs.11.20 - —
Zinc Chloride, tech. gran., fib. dms., c.l., works 100 lbs.11.45 - —
fib dms. l.c.l. works 100 lbs.11.95 - —
Zinc chromate bbls., dlvd. lb. .29 - —
Basic bbls., dlvd. lb. .34 - —
Zinc cyanide dms., 1,000-lb. lots or more, works lb. .55 - —
dms., smaller lots, works lb. .57 - —
Zinc dust comil. bbls., c.l., works. lb. .16 - —
Pigment, bbls., c.l., works lb. .15½- —
bbls., l.c.l., works lb. .17¼- —
Zinc fluoride, bbls., works lb. .49 .50
Zinc hydrosulfite, dms., c.l., frt. alld lb. .21½- —
dms., l.c.l. frt. alld. lb. .23½- —
Zinc metal, prime western, slabs, E. St. Louis lb. .11½- —
Prime western slabs, New York lb. .12 - —
Zinc naphthenate liq. 8% Zn., dms., frt. alld lb. .27 - —
10% Zn., dms., frt. alld. lb. .33 - —
Zinc nitrate, tech., flake, 100-lb, fib. dms., l.c.l. lb. .16½- —
300-lb. fib. dms, l.c.l. lb. .14½- —
300-lb. fib. dms., c.l. lb. .14 - —
Zinc oxide pigment, American process, lead-free bgs., c.l., f.o.b. works lb. .12½- —
bgs., l.c.l., 10 tons or more, same basis lb. .13 - —
bgs., l.c.l., smaller lots, same basis lb. .13½- —
Zinc oxide, leaded, 35%, bgs., c.l., mills, f.o.b. works lb. .14 - —
bgs., l.c.l., 10 tons or more, same basis lb. .14½- —
pigment, American process, leaded, 50%, bgs., l.c.l., 10 tons or more, same basis. lb. .14½- —
Zinc oxide, pigment, French process, green seal, bgs., c.l., f.o.b. works lb. .14½- —
bgs. l.c.l. 10 tons or more, same basis lb. .15 - —
Zinc oxide, French process, green seal, bgs., l.c.l., smaller lots, same basis lb. .14½- —
red seal, bgs. c.l. same basis. lb. .14½- —
Zinc oxide, French process, green seal, bgs., l.c.l., 10 tons or more, same basis lb. .15 - —
bgs. l.c.l. smaller lots same basis lb. .15 - —
Zinc oxide, white seal, bgs., c.l., same basis lb. .14¾- —
bgs., l.c.l., 10 tons or more, same basis lb. .15½- —
bgs., l.c.l., smaller lots, same basis lb. .15¾- —
Zinc oxide, USP dms., c.l., frt. alld. lb. .16 - —
dms., l.c.l., 10 tons or more, same basis lb. .16½- —
dms., l.c.l., smaller lots, same basis lb. .17 - —
Zinc phenolsulfonate, NF, gran., dms lb. .45 - .46
NF powd. dms. lb. .48 .49
Zinc resinate, precip. 7.2-7.6% Zn., dms., frt. alld lb. .45 - —
Zinc silicofluoride dms. works lb. 12½ .14
Zinc stearate USP, ctns., c.l. lb. .41 - —
lb. .41 - —
ctns. l.c.l. lb. .43 - .46
Zinc sulfate, powd., monohydrate, 36% Zn. bgs. c.l. dlvd E. 100 lbs. 8.00 - —
bgs., l.c.l., dlvd. E. 100 lbs. 9.00 - —
Zinc sulfate in bbls 40c higher.
Zinc sulfide, pure, bgs., c.l., dlvd lb. .2530- —
Zinc undecylenate, 75-lb. fib. dms., f.o.b. works lb 2.04 - —
Zinc, yellow (see Zinc chromate)
Zinc-ammonium chloride, bgs., c.l., works 100 lbs.10.25 - —
bbls., c.l., works 200 lbs.10.85 - —
bbls., l.c.l., works 100 lbs.11.35 - —

| | | |
|---|---|---|
| Zinc-formaldehyde sulfoxylate, basic, 300-lb dms., frt. alld lb. | .26 | — |
| Normal, 250-lb. dms., frt. alld. lb. | .55 | — |
| Zircon (G) gran., bgs., c.l., works. lb. | .03¼- | — |
| Zircon (G) gran., bgs., 5 tons to c.l., works lb. | .03⅜- | — |
| bgs., 1 ton to 9,999-lb. lots, works lb. | .04 - | — |
| bgs., smaller lots, works lb. | .06½- | — |
| Zircon (G) milled, bgs., c.l., works. lb. | .04¼- | — |
| bgs., 5 tons to c.l., works lb. | .04⅜- | — |
| bgs., 1 ton to 9,999-lb. lots, works lb. | .04½- | — |
| bgs., 500-1,999-lb. lots, works lb. | .07½- | — |
| Zircon (G) in barrels 1c. higher. | | |
| Zirconium acetate soln., 13% $ZrO_2$, dms., c.l., 30,000 lbs. min., works lb. | .23 - | — |
| Zirconium hydride powd. electronic grade, dms., works lb. | 14.00 | 15.00 |
| Zirconium oxide, CP, white, grd., bbls. or bgs. works lb. | 1.50 - | — |
| Electric-fused lump, bgs., 500 to 1,999-lb lots, works lb. | .48½- | — |
| bgs., smaller lots, works lb. | .51 - | — |
| milled, bgs., c.l., works lb. | .62 - | — |
| bgs., 5-ton lots, works lb. | .62½- | — |
| bgs., 1-ton to 9,999-lb. lots, works lb. | .63½- | — |
| bgs., 500 to 1,999-lb. lots, works lb. | .64 - | — |
| bgs. smaller lots, works lb. | .66 - | — |
| Glass polishing grade, 94-97% $ZrO_2$, bgs., works lb. | .55 - | .85 |
| Opacifier grade 85-90% $ZrO_2$ bgs., lb. | .27 - | .50 |
| Stabilized oxide 91% $ZrO_2$, milled, bgs lb. | .82 | .85 |
| Zirconium oxychloride, cryst., ctns., 5-ton lots, works lb. | .37½- | — |

## Bids Wanted

**Ammonium Phosphate,** 56,200 lbs., spec. to be furnished to conform to description and formula in invitation, various destinations. Bid IFB 63077-3362-61B, May 15. An additional quantity of 56,200 lbs. is being set aside for labor surplus areas under a partial determination. Military Industrial Supply Agency, 700 Robbins Ave., Philadelphia 11, Pa.

**Calcium Carbide,** tech., 250,000 lbs., fed. spec. O-C-101A & Amend. 1, dated Mar. 6, 1951. Bid IFB 102-229-61, May 19. Supply Officer, Code 530, Naval Shipyard, Portsmouth, N. H.

**Caustic Soda** (sodium hydroxide), mil. spec. MIL-S-11795A, contract period July 1, 1961 thru June 30, 1962, indefinite quantity, to be delivered in tankcars of approximately 8,000 gals. to Pensacola, Fla., and Milton, Fla. Bid IFB 204-101-61B, May 24. Supply Department, US Naval Air Station, Pensacola, Fla.

**Desiccants,** activated, spec. MIL-D-3464B (QPL), 262,776 bags, various destinations. Bid IFB 63077-3389-61B, May 29. An additional quantity of 81,720 bags is being reserved for labor surplus areas under a partial determination. Military Industrial Supply Agency, 700 Robbins Ave., Philadelphia 11, Pa.

**Gypsum,** 10,500 metric tons, estimated cost $120,000, of crushed gypsum rock crushed 6 inches or smaller, with $CaSo_4.2H_2O$ content not less than 96 percent. Shipments to be made within two months of receipt of letter of credit. Vessel will be discharged at average rate of 200 m/t per hatch per weather working day of 24 consecutive hours, Sundays and holidays excepted. Insurance will be covered by buyer. Bids should reach the Taiwan Cement Corporation, 113 Chung Shan North Road, Section 2, Taipei, before 10:00 a.m., May 12. Prices per m/t should be quoted c&f and f.o.b. plus ocean freight. Seller should inform Taiwan Cement Corporation by cable "CEMTWAN," name of ship, quantity loaded, shipping date and port of departure.

**Sodium Phosphate,** spec. fed. O-S-642, amend. 2, type I, 19,000 lbs. Bid IFB 63077-3354-61B, May 15. An additional quantity of 177,500 lbs. is being reserved for labor surplus areas under a partial determination. Military Industrial Supply Agency, 700 Robbins Ave., Philadelphia 11, Pa.

## FDA, FTC and the USDA

—Continued from page 3

the means by which they seek to give consumer protection in their regulatory activities.

When the basic data is received and analyzed, an opportunity may later be given to the agencies to amplify their reports and answer criticism that may arise.

The committee's interest appears to be centered largely, at the moment, on the matter of USDA's meat inspection regulations permitting meat processors to inject water into ham during the curing process.

This procedure, which was authorized by the government earlier this year, has aroused the wrath of consumer groups and the department currently is in the process of reconsidering this regulation.

But the work of FDA, from the standpoint of consumer protection, will also draw considerable of the committee's attention, according to its spokesmen. Attention will be directed, it was stated, chiefly at the degree of cooperation existing between FDA and state authorities.

A committee spokesman said that the FDA is being asked to report on such matters as food additives control, consumer protection against poisonous and harmful substances, drug counterfeiting and FDA clearances of drugs for efficacy and safety.

## Quinine Sale Stymied

—Continued from page 3

the notice that new bids will be invited and opened before the end of the month.

Highest bidder for the entire lot was the Dutch firm, NV Hederlandsche Combinate, which was the successful purchaser of the quinine in dosage form offered by GSA last month. The firm bid $136,000 for the hydrochloride powder.

Other unsuccessful bidders, all from New York were:

Hexagon Laboratories, which offered $135,665; South American Minerals & Merchandise Corporation, $118,706; and Chemical Service Corporation, $23,323.

# FDA's Latest Bit of Strategy: One Big Legislative Proposal

—Continued from page 3

tation for opposition from many quarters, but he figures that it is worth a try to advance the agency's program all at one time.

He points out that it is seldom possible to get more than one or two separate pieces of food and drug legislation through congress in one session and at this rate of progress it would take upwards of ten years to get the program enacted.

### Might Have Better Chance

By wrapping it up in one bill, with administration endorsement, it might have a better chance of getting through congress at an earlier date.

He has no misgivings, however, as to how quickly congress might act on the proposal, recognizing that aid-to-education and Social Security medical care legislation commands priority status on the Kennedy program. By introducing it this year, hearings could be held and at least that much progress made.

Mr. Harvey has been meeting with the industries affected over the past several weeks and discussing the bill with them. He says that there is nothing new in the legislative proposals and that he was simply putting them all into one bill.

If and when introduced, the bill will be under the jurisdiction of the house interstate commerce committee and the senate labor and public welfare committee, which have handled all FDA bills in the past.

The Kefauver-Celler bill, even though it contains some major amendments to the food and drug law, was referred to the judiciary committees because of its anti-trust and patent law features.

A program to require all cosmetic manufacturers to run safety tests on their products before marketing has been "in the works" for a number of years, and discussed many times by FDA with the industry.

### Would Follow Additives Law

In general, it would follow the pattern of the food additives law for testing of cosmetic ingredients, with the added requirement that the final product also be within safety limits.

Manufacturers are expected to object to this feature because of the added expense involved, but FDA is adamant on this point and expects consumer groups to support its position on any showdown in congress.

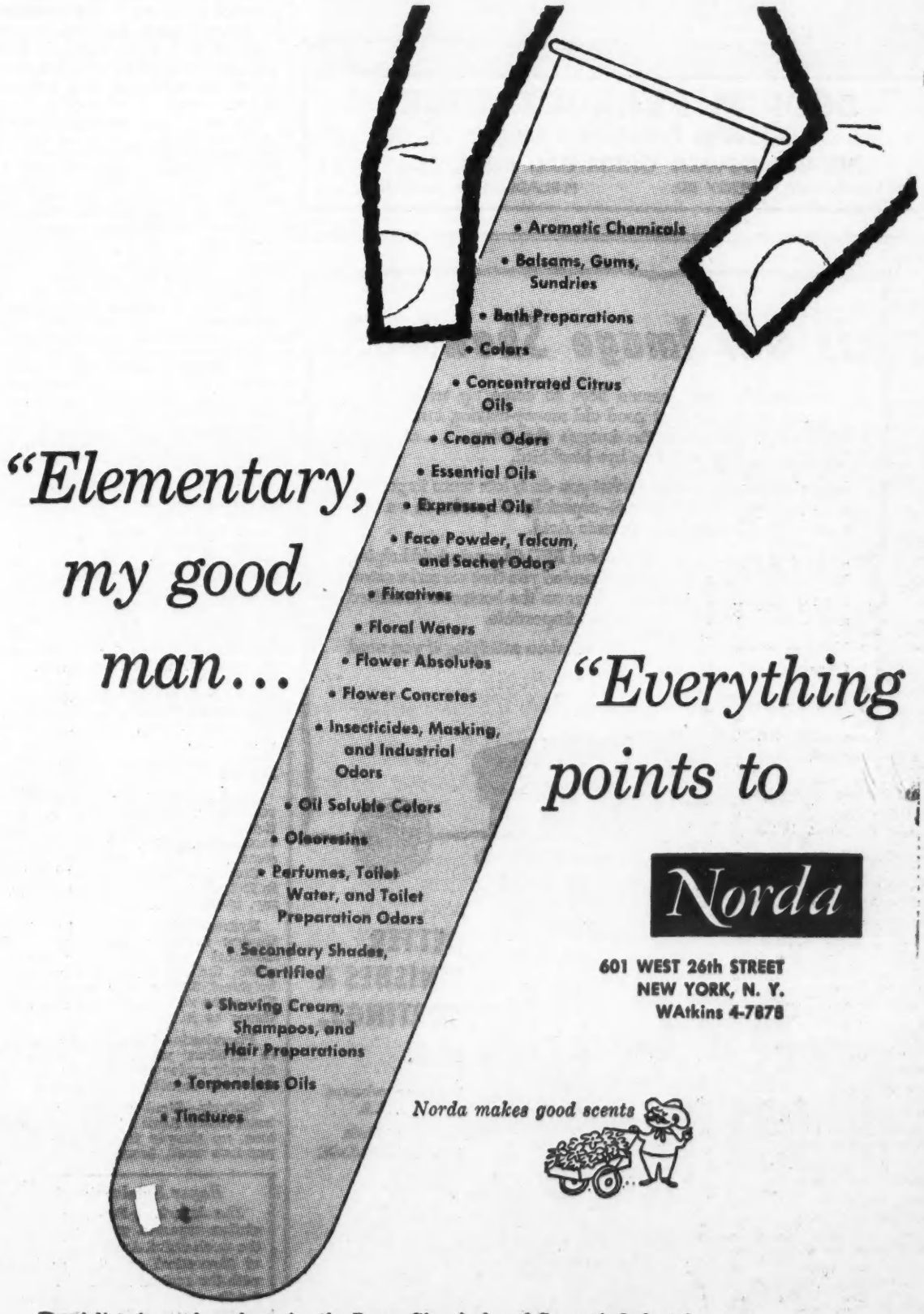
The proposal for closer controls over barbiturates and amphetamines has been advocated by FDA for many years, but has never progressed beyond the hearing stage.

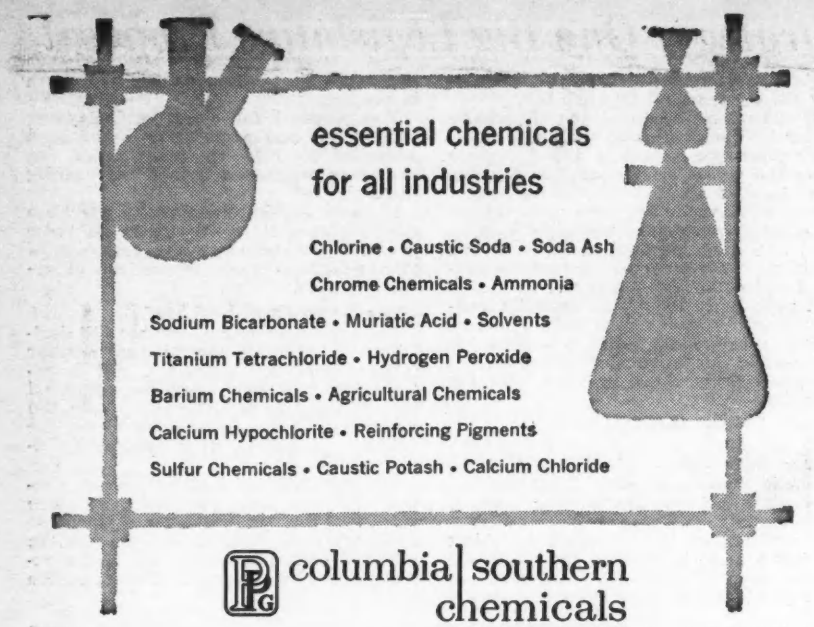
It would require manufacturers to keep complete records on distribution of these products and increases the authority of FDA agents to make inspections of retailer records.

### Some Proposals of Last Year

The provisions of the omnibus bill dealing with antibiotic certification, broader factory inspection authority, and a requirement that new drugs be measured for efficiency as well as safety, are the proposals of last year growing out of the Kefauver committee drug industry investigations.

The proposal for medical devices control also has been advocated for some years by FDA, but has never reached the bill stage until now. It would apply the principle of the new drug law to the introduction of new medical devices on the market.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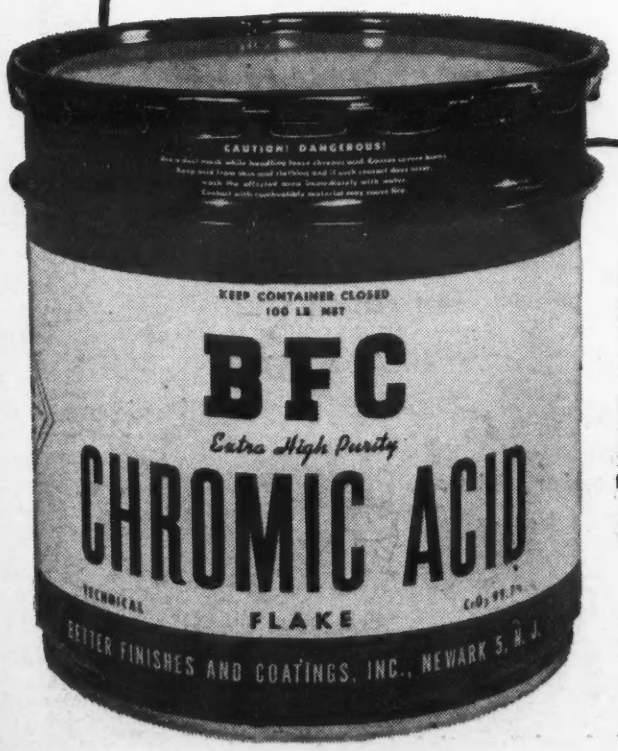


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## *Heavy Chemicals*

# Water Fluoridation Still Spreading, Despite Shyness of the Big Cities

Rejection of water fluoridation by Cincinnati recently shouldn't obscure the fact that this denial hygiene program has gained and continues to gain substantially. Even some in the industry were surprised to learn that with a spate of small municipalities adopting the program in 1960, the total population served by fluoridation rose from 36.2 million at the start of the year to 38.5 million at the close. True, the larger cities that may have been ripe for it continued to shy away, and the hostile propaganda of anti-fluoridation forces gained in intensity, turning the tide in several of last November's referendums.

The figures, however, speak for themselves. And while big cities mean big sales, the smaller ones aren't scorned either. In one respect, trade sources point out, they represent a sounder business proposition, since a supplier to a large city can lose out on the bidding and find himself with a pile of material and nowhere to sell it.

The trade finds fluoridation following the trend set by chlorination back in the twenties: a big send-off followed by a gradual uptrend, culminating in full public acceptance. The final stage is reached only after sufficient time has elapsed without producing the dire consequences predicted by antagonists of the measure.

Tempted now and then to put in a good word for fluoridation, the trade has preferred to leave the battle in the hands of proponents with no axe to grind. These include the American Dental Association, the American Medical Association and the Department of Health, Education & Welfare.

Among recent developments, imports of sodium silicofluoride in the past few months have fallen off sharply from the 5,000-ton-a-year level prevailing in 1960.

Reports from Europe indicate that fluoridation has been gaining there also, with the possibility that exports to this country may dry up.

Fluoride treatments in the dental office and a newly-tested vitamin $B_6$ treatment (which is reported to cut down caries sharply when taken in capsule or lozenge form) are not seen as real alternatives to water fluoridation because of their high cost. Fluoridation via sodium silicofluoride costs only 8 cents per year per person, according to trade estimates.

Because of the booming phosphate fertilizer business, the supply potential of silicofluoride is greater than the demand potential for water fluoridation. But the bulk of the fertilizer industry consists of small plants for which a sodium silicofluoride recovery operation would prove uneconomical. Hence, there's no worry about over-supply.

### Price Trends

**Advanced**
Copper, 1c. per lb.
Tin metal, 1c. per lb.
Salts, ½c. to ⅝c. per lb.

**Reduced**
Mercury, $6 per flk.

**Comparative Price Indexes**
(100=1949 average)

| Last week | Prev. week | Last month | May 6, 1960 |
|---|---|---|---|
| 106.83 | 106.86 | 106.81 | 106.88 |

*For Current Prices see page 10*

## Acids

**Boric**—Demand has shown further improvement, in line with the general, though modest, upturn in the nation's economic activity. Price undertone is steady.

**Chromic**—Plating demand has improved in Detroit, but appliance business, sources say, is not up to snuff.

**Hydrochloric**—With steel activity continuing to show improvement and the chemical industry hitting its Spring stride, the outlook for hydrochloric is the brightest it has been in many months. The price situation on the east coast continues as is.

**Phosphoric**—Owing to its favored slot in fertilizer production, phosphoric was the only major acid to score gains during the early months of this year.

**Sulfuric**—Steel production during the week ended April 29 totaled 1,858,000 net tons, up sharply from 1,784,000 tons the previous week, American Iron & Steel Institute reports. Output for the year to date stands at 27,044,000 tons, as compared with 43,640,000 in the comparable period of last year.

### *Paper Production Lower*

The American Paper & Pulp Association reported paper production for the week ended April 29 at 87.9 percent of theoretical capacity, as compared with the revised figure of 91.5 percent for the previous week and 99.4 percent for the corresponding week of last year.

## Bases and Salts

**Calcium chloride** — Water sanitation needs are absorbing a good volume of material in the wake of sloppy weather. Prices continue unchanged.

**Caustic Soda**—The market's long-term health is threatened by the continuing increase in chlorine demand which through electrolytic co-production of caustic soda could result in oversupply of the alkali.

In the current market, however, demand has proved sufficient to absorb a fair volume of lime-soda output as well as the electrolytic product.

Judging it against overall business conditions, consuming interest in caustic soda has been holding up well, trade sources said last week.

**Chlorine**—Seasonally brisk activity of paper makers has this material moving in good form. Prices were last advanced a year ago April 1, and the outlook for the balance of this year is steady.

**Copper Sulfate**—Production of copper sulfate in the US decreased 16 percent to 4,000 tons in February, while shipments dropped only 1 percent, the Mines Bureau reports. Stocks fell 7 percent, sufficing at the February rate of shipments for little more than a month's requirements. Exports totaled 510 tons; there were no imports.

**Lime**—Lime sold and used in February totaled 885,234 short tons, down from 907,660 in January and 981,898 in February a year ago, the Bureau of Mines reports.

The current figure includes 708,867 tons of quicklime and 176,367 tons of hydrated. By uses it breaks down as follows: Agricultural, 5,803 tons; construction, 63,287 tons; chemical and other industrial, 692,222 tons; and refractory, 119,922 tons.

## Nonferrous Metals

**Aluminum**—Exports of crude aluminum from the US in February continued the decline begun in January of this year, Business & Defense Sedvices Administration reports. The total was 24.3 million pounds as compared with 33.1 million in January 1961 and 52.3 million in December.

Crude exports in the two-month period, January-February, were 57 percent under the same period in 1960, BDSA notes.

Domestic production of primary aluminum of February totaled 138,560 short tons, the Bureau of Mines reports. This was the smallest monthly production since October, 1958, and 22,867 tons under the January level. Lower operating rates as well as the shorter working month accounted for the decline.

**Beryllium**—Prices of beryllium powders have been substantially reduced by a major producer. Brush virgin powder has been cut 12 percent from $71 to $62.50 a pound; and blend powders 15 percent from $64 to $54 a pound. Economies of larger scale production have made the price cut possible, the company says.

**Copper**—Production cutbacks coupled with improved demand has strengthened the copper market, culminating last week

## Heavy Chemicals

in a one-cent advance to 30 cents a pound for primary producers' metal. Expiration of labor contracts at a major company's mines this summer is also thought to have been a factor in the stronger demand.

**Mercury**—Chromically slow demand, when combined last week with increased availability of supplies from Europe, caused a sharp decline in prices here. Large lots (twelve flasks or more) were reduced $6 a flask to a range of $200 to $202.

**Silver**—Quotation continued at 91⅜c. a troy ounce, spot, unchanged for over a year.

**Tin**—Market continued strong, prices closing at $1.09 a pound, spot, Friday.


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### Heavy Chemical Briefs

**ASARCO SALES UP:** "Sales of copper to domestic consumers have increased substantially, and there is a somewhat higher rate of sales of prime western zinc. Sales of lead have held at about the same level as in the last quarter of 1960." This report, by J. D. MacKenzie, chairman and president of American Smelting & Refining Company, was heard at the company's recent annual meeting in Jersey City, N. J.

**GLASS BUSINESS HUMS:** First-quarter shipments of glass containers were up a sharp 14.3 percent over the comparable period of last year, according to the Glass Container Manufacturers Institute. The current figure was 5.3 billion units as against 4.7 billion last year. Leading the uptrend were non-returnable containers for beer and soft drinks.

**GSA REJECTS BIDS:** General Services Administration says it has received no acceptable purchase offers for the 26,937 troy ounces of osmium powder, 308,755 troy ounces of rhodium sponge and 50,790 troy ounces of ruthenium powder for which bids were opened April 21. Revised offers will be entertained until May 15, the agency adds.

### Morton's Dr. Guthmann To Join Midwest University

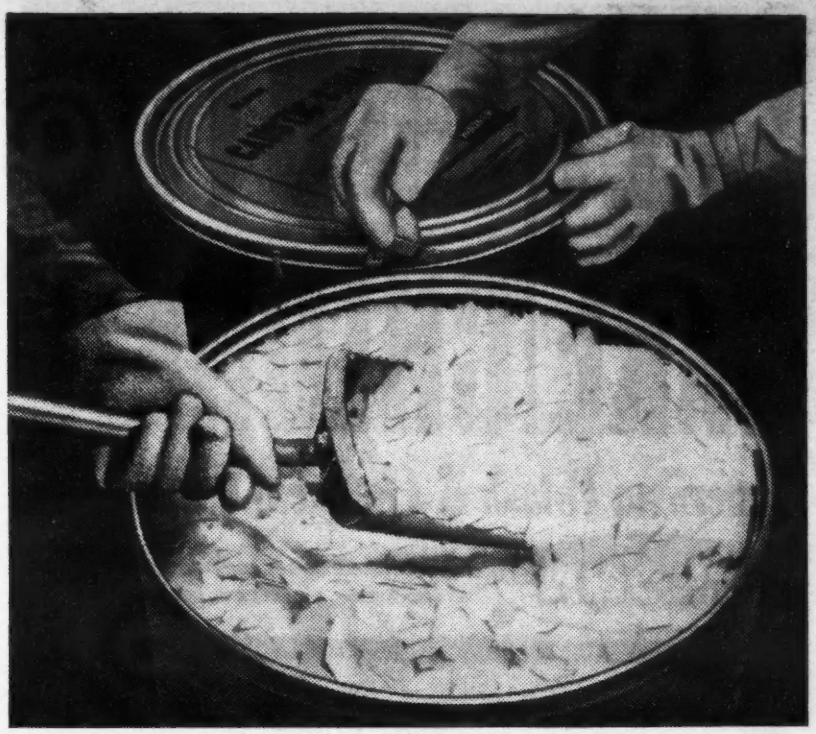
Dr. Walter S. Guthmann will join the faculty of Roosevelt University, Chicago, September 1, as an associate professor of chemistry.

In 1933, Dr. Guthmann was a co-founder of Edwal Laboratories, Chicago, where he did chemical consulting and manufactured fine organic and photographic chemicals.

After returning from Army duty in 1945, he was elected president of Edwal Laboratories, which later merged with Morton Chemical Company. Dr. Guthmann is currently with Morton Chemical and a director of Metal Hydrides, Inc.

### Plant Food Parley Slated

National Plant Food Institute will hold its 1961 annual meeting June 11 to 14 at the Greenbrier hotel, White Sulphur Springs, W. Va.

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## Lead Accepted as Barter For USDA Farm Surplus

Refined lead is being put on the bargaining counter in exchange for surplus agricultural products by the Department of Agriculture.

Announcing a broadening of the list of materials it will consider under the barter program to include this metal, the department said last week that these transactions will involve surplus stocks of lead held prior to December 31, 1960, by producers in friendly foreign countries.

Department of the Interior, after consultation with the departments of State and Commerce, will notify USDA of producers eligible to participate in the barter transactions.

Only refined pig lead will be acceptable. Prime condition for eligibility for barter will be by agreement by the affected lead producer that he will reduce mine output, smelter production, and commercial offerings, and maintain stocks at normal levels.

USDA emphasizes that, prior to making offers to CCC, prospective barter contractors should make sure the lead producers affected are eligible for lead barter.

Resumption of lead barter implements the statements by the US delegate to the International Lead and Zinc Study Group in Mexico City, March 24.

## *Maleic Hydrazide*

—*Continued from page* 3

report reads, "threatens to reduce substantially the sale of US leaf for economic reasons in such very high duty countries as Great Britain and Ireland, which together took 43 percent of the US flue-cured leaf export in 1960.

"It would also reduce the competitiveness of US leaf in other countries," it goes on. "A decrease in consumer smoking preferences because of the effects of maleic hydrazide in association with other questionable changes in tobacco, would decrease export demand for US leaf as soon as competitive foreign production can furnish the necessary volume.

"The psychological aspects of leaf buyer opinion are a very important infuence on US exports. Many foreign leaf experts have expressed the opinion that maleic hydrazide adversely affects the manufacturing capacity and smoking quality of leaf tobacco. Any reduction in the suitability of US leaf makes for increased possibility of the greater use of foreign leaf and/or leaf tobacco substitutes in the domestic market. The inability of the leaf buyer to recognize tobacco treated with maleic hydrazide when making his purchases is a deterrent to buying US leaf."

### Riches-Nelson Expands Office Space

Riches-Nelson, Inc., New York, sales agents and distributors of chemicals and allied products, is now occupying new office space in Room 1810, on the eighteenth floor of the same building in which the company has been located—342 Madison Ave. The new quarters exceed the size of the former space by approximately 600 square feet.

**IN RESEARCH POST: Dr. Louis J. Croce, promoted to manager of the Petro-Tex research department at Food Machinery & Chemical Corporation's chemical research and development center in Princeton, N.J.**

## Mallinckrodt P. A. Retires

Joseph J. Reilly has retired as purchasing agent from Mallinckrodt Chemical Works, St. Louis, Mo. Mr. Reilly joined Mallinckrodt's purchasing department in 1915 and, except for a one-year stint in the US Navy during World War I, remained in that department until his retirement earlier this year.

## *Naphthalene Company*

—*Continued from page* 7

completed and in operation during the last quarter of 1961.

"Until our Toledo plant is finished," Mr. Smith said, "our main plant in South Kearny will supply customers west of the Appalachians with napthalene chip, ball and flakes in limited quantity commencing July 1."

The parent firm makes paradichlorobenzene, orthodichlorobenzene, hexachlorobenzene and muriatic acid. During the month of June, Standard Chlorine will also begin the manufacture of tetrachlorobenzene and trichlorobenzene.

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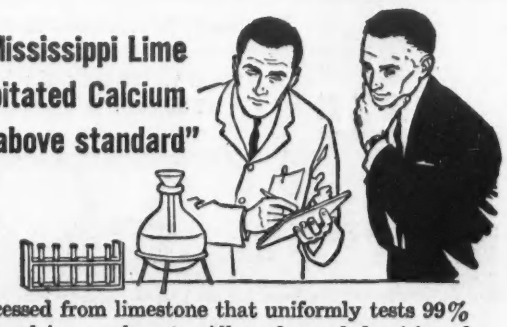

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## OPD Reports From Europe

# American Chemical 'Find': Germany

—Continued from page 7

in the general category of basic organic chemicals; 10 percent were plastics, 9.4 percent inorganics, 8 percent fibers and 7 percent drugs. Imports of drugs noticeably increased last year, industry officials say.

On the export side, German firms fret that while shipments to European countries were up 16.6 percent to $1 billion, sales to overseas countries rose only 9 percent to $550 million. This slow rate of growth in overseas markets reflects generally tougher selling conditions, and relatively sharp dips in exports to the US and to Red China.

These official figures, covering all of 1960, point up the concern of German chemical company managements with the effects the Bonn revaluation of the mark will have on their business.

**Revaluation Will Raise Prices**

The upward revaluation of the mark will automatically raise prices by 5 percent, or reduce profit margins an equivalent amount if prices are not increased, while at the same time reducing the prices on competitive imports in the domestic German market by a similar 5 percent. Coming at a time when growth of export sales is slowing, and imports jumping, revaluation hardly has a happy look to chemical companies.

The 1960 figures also show that the German chemical firms are still threatened with big sales losses by the widening split in Europe between the Common Market and the European Free Trade Association.

With rapidly increasing business in France, German companies exported 25.8 percent of their total shipments or $400 million to the Common Market against 23.9 percent in 1959; but exports to the EFTA countries were 28 percent of the total or $425 million, compared to 26.9 percent in 1959.

Pressure from Bonn, Paris and Washington on the British government in London to take the plunge and ask for membership in the Common Market has the keen support of the German firms. Britain is the major country in the seven-nation EFTA, and months of negotiations between the Common Market and EFTA for some "bridge" between the two short of membership or association are proving futile.

German chemical shipments to Russia and the Communist European satellite countries rose last year to $54.2 million with Russia accounting for about $9 million of the total.

**3.5 Percent of Total Chemical Exports**

This represents about 3.5 percent of total chemical exports against an average figure for the same countries of about 12 percent prior to World War II. German export-import statistics exclude interzonal trade between East Germany and West Germany, but some idea of the importance of such trade can be gained from the bitterness of West German firms at British and French firms accelerating their sales effort in East Germany.

Fastest growing Germany exports last year were plastics, drugs and coaltar dyes. While basic organic chemicals failed to match overall export growth, this category is still the most important export group with sales of $232 million last year. Nitrogen fertilizers were hard hit with sales dropping by $13.9 million to around $71 million. This is attributed to worldwide expansion of nitrogen fertilizer capacity.

## *Toluene, Xylene Face*

—Continued from page 3

and that they should be classed as liquid derivatives of crude petroleum subject to a tax at the reduced rate of ¼ cent per gallon.

The bureau said that it would give consideration to any relevant data, views, or arguments pertaining to the correct taxable status of the products which is received in writing by June 2. No hearings will be held, it was stated.


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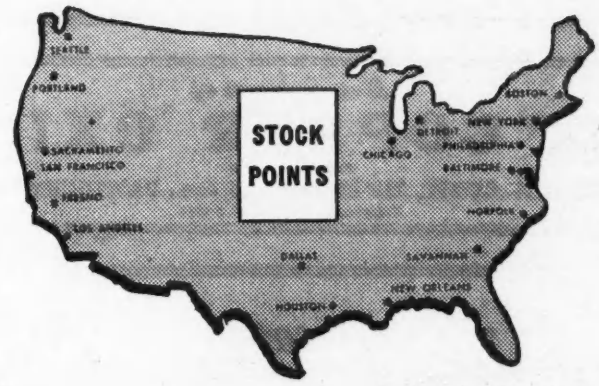


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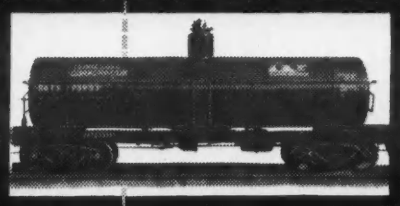

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## AEC Sets Up Committee For Liaison With Industry

Atomic Energy Commission, has established an Office of Industrial Participation, designed to strengthen industry's role in the atomic energy program. Ernest B. Tremmel, special assistant to Commissioner Robert E. Wilson, has been named director of the new office. The effective date is today (May 8).

The over-all objectives of the new office for bolstering the commission's cooperation with US industrial organizations are three-fold:

- To provide a focal point for industry to obtain information on opportunities for private participation and investment in the development and use of atomic energy for civilian purposes and for support of government programs.
- To study industrial-type activities now being, or to be, performed by AEC operating contractors which might be carried out by private industry; and recommend to the commission policies, plans, and programs for the transfer of such activities to industry when warranted.
- To appraise and report on the effectiveness of the commission's policies and plans for broadening industry's participation in the program.

## *Lead: Can We Use It?*

*—Continued from page 7*

dustries Association staff noted that trends in mechanization and the growing concentration of people in urban environments will make the fight against noise a crucial one five or ten years hence.

"The market outlook for lead in this field is optimistic," he said.

Solid state physics, "glamour" science of the mid-twentieth century, has already yielded such electronic devices as transistors and masers.

Lead zirconate-titanate, with the ability to generate electricity when pressure is applied, has a key role to play in the commercial advance of this science, the meeting was told.

From several talks on piezoelectric lead zirconate-titanate, these potential outlets emerged: Sonar, ultrasonic cleaning and gasoline engine ignition; pearlescent lead pigments; thermoelectric lead-telluride; and a new lightweight structural material — glazed lightweight clay blocks.

"New product ideas for PZT are being generated so rapidly that evaluation of their merits is becoming quite a problem," said Gordon Eubanks, general sales manager of Clevite Electronics Components.

Volume sales today, Mr. Eubanks noted, are in ultrasonic cleaning and sonar devices. As to underwater sound, it was said, the US Navy figures most prominently right now, but commercial uses are developing just as fast as "fish finders and depth finders for pleasure boats."

A revolutionary new method for ignition of gasoline engines using PZT ceramics to supply the spark is in production at Clinton Engines Corporation, reported Martin Glenday, special products manager for the company.

Within ten years, he predicted, piezoelectric systems will be installed on all small engines and most large multicylinder ones—including those for automobiles and trucks.

**ON THE BOARD: E. F. VanderStucken, jr., elected a director of Texas Gulf Sulphur Company, New York. He resigned as vice-president and secretary in January.**

## French Chemical Producers Eye Southeast Asia Market

French chemical producers are eyeing the nations in Southeast Asia as a lush market.

Industry officials, returning from a three-week tour of Pakistan, India, Burma, Thailand, Malaya, Hong Kong and Formosa, report that French companies can easily double or treble their chemical sales in these Asiatic areas.

Only 3 percent of Indian and Burmese chemical imports last year came from France. The figures for Pakistan and Thailand and 4 and 2 percent, respectively.

The French trade mission reports that Italian companies are moving into these markets most aggressively and other big chemical sellers are German, British, Japanese and US firms.

The French touring group reports considerable interest and success in its efforts to line up distributors for French chemical firms.

## FTC Appoints Henderson

James McInnes Henderson has been appointed general counsel of Federal Trade Commission. Mr. Henderson has served FTC since June 1958 as an attorney in the appellate division of the general counsel's office. He also served, while on loan from the commission, as general counsel of the government activities sub-committee of the House of Representatives.

## *Cyanamid Buys Up*

*—Continued from page 5*

and other plastic products at plants in Sanford, Me.; Cambridge, Mass.; Wichita, Kan.; Kearny, N. J. and Toronto, Canada.

Cyanamid plans to retain the company's more than 400 employees, 70 percent of whom are located at the firm's main facility in Sanford.


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# U.S.I. CHEMICAL NEWS

May ★ A Series for Chemists and Executives of the Solvents and Chemical Consuming Industries ★ 1961

## *New Method for Detecting And Analyzing Chemicals & Gases Uses Radioactivity*

A new technique for super-sensitive detection and analysis of chemicals and gases, by reacting them with a radioactive compound, is covered in a patent issued recently. Called "radiometric exchange," the basic principle is said to have great potential in air pollution studies, atmospheric and outer space measurements, and industrial process control.

Techniques evolving from the new method are reported to offer several advantages over previously existing techniques:

(1) extreme sensitivity, with accuracy in the parts per billion range.
(2) continuous monitoring and analysis for long periods without attendants.
(3) simplicity and compactness.
(4) selectivity.
(5) detection of wide range of compounds.

In a typical case—air pollution studies—the principle has been applied to the measurement of sulfur dioxide in the atmosphere by drawing the air through a small reaction cell. Sulfur dioxide in the air reacts in the cell to form a radioactive gas. The amount of radioactive gas generated is directly proportional to the amount of sulfur dioxide in the air. By counting the radioactivity present with a geiger counter, direct determination of sulfur dioxide is made.

## Methionine Seems to Play Role in Reducing Cholesterol Deposition

Studies at a Chicago hospital have correlated influences of dietary patterns on cholesterol formation and artery disease incidence. The research was carried out on poultry and confirms previous observations on monkeys and rats.

In the tests, restricted intake of methionine by chicks on a high-cholesterol, high-fat diet resulted in increased deposition of cholesterol. There was also increased coronary and aorta atherosclerosis. High-protein, high-vitamin supplementation tended to suppress these conditions. High protein feeding alone seemed to reduce coronary atherosclerosis only. High vitamin feeding alone had no effect. The type of protein fed also appeared to be a factor. Soy protein gave better results than casein- gelatin.

# Banner Year for Fertilizers Expected in 1961

### Greater Capacity for Sulfuric Acid, Phosphoric Acid, and Phosphates Will Couple with Trend to High Analysis Fertilizers. Gross Tonnage Unchanged but Dollar Volume Will Be Up.

The Business and Defense Services Administration, U.S. Department of Commerce, predicts that the 1961 fertilizer season will be slightly better than the 1960 season. Dollar volume of all chemical fertilizers shipped in 1960 is estimated at $1.220 billion, $40 million higher than 1959. Dollar volume is expected to increase again in 1961. Gross 1961 tonnage, however, is expected to remain unchanged at the 25.3-million ton level of 1960 because of the shift to higher analysis fertilizers.

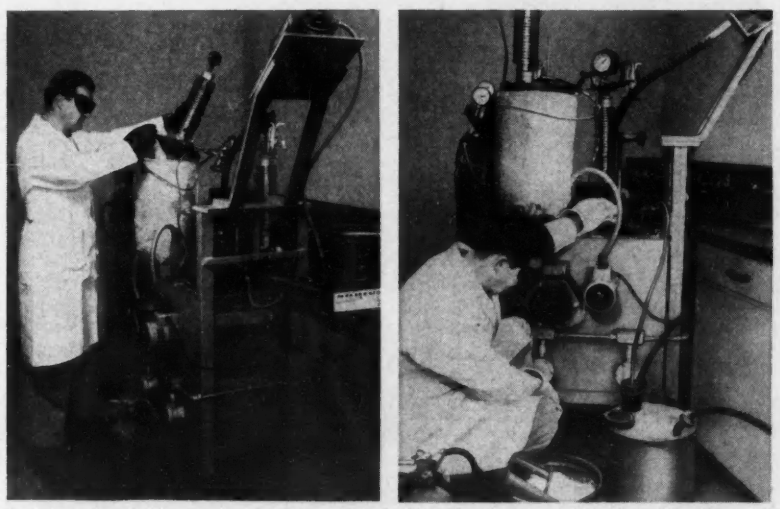
**Ammonia and Sulfuric Production Up**

For November 1960, the Census Bureau reported synthetic ammonia production at 408,035 short tons; ammonium nitrate fertilizer grade production at 259,948 short tons; nitrogen solutions production, including combinations with urea, at 63,326 short tons. All figures were up from November 1959. This trend is expected to continue through the heavy spring selling season.

The Business and Defense Services Administration expects a 2.5-million ton increase in sulfuric acid production for 1961. About 1.5 million short tons of acid ca-

MORE

## *3-Gallon Sodium Dispersion Unit Loaned Out by U.S.I. for Eighth Straight Year*



At left, sodium bricks are charged into melt tank. After liquefaction, sodium flows into dispersion preparation unit which is immersed in heated oil bath. At right, finished sodium dispersion is transferred by low pressure nitrogen into metal storage vessel.

This equipment was designed and built by U.S.I. in 1953, as an aid to companies investigating sodium dispersions on a pilot plant scale. It has been out on loan ever since—for 30-day periods—in plants from coast to coast.

This unit has been employed to prepare sodium dispersions for many types of reactions. Among them are included: Claisen condensations; Wurtz type reactions; sodium alcoholate preparations; purifications; sodium alkyl and aryl preparations; metalations; sodium hydride preparations; acidic hydrogen replacements; polymerizations.

If you are interested in borrowing this unit, please contact Manager, U.S.I. Sodium Sales, U.S. Industrial Chemicals Co., 99 Park Ave., New York 16, N. Y.

## New Sedative Derived from Reserpine Acts Rapidly

A potent, fast-acting sedative has recently been derived from the drug reserpine. It is reported to achieve its calming effect within 30 minutes.

According to the results of tests to date, the compound does not appear to lower blood pressure, accumulate in the body, cause nasal stuffiness, or increase intestinal motility. These are all undesirable side effects of reserpine. The material also appears to be unusually potent in suppressing fibrillatory spasms of the heart.

The new sedative is identified as 18-epi-O-methylresperate hydrochloride. The same synthetic method used to prepare the new compound has been used to produce additional compounds, it is reported. Some are said to have sedative action while others seem to show the anti-fibrillatory effect.

## *New Bulletin on FILMEX® Solvent for Flexographic Inks Published by U.S.I.*

A new bulletin on FILMEX special industrial solvent is now available from U.S.I. This bulletin gives properties, specifications, shipping data, uses.

FILMEX is U.S.I.'s trade-marked ethyl alcohol special industrial solvent formulated to meet the needs of the graphic arts and photographic industries. Since FILMEX does not contain ethyl acetate or hydrocarbons as denaturants, it has no adverse effects on rubber plates, rolls and type used in flexographic printing.

FILMEX is also used for drying photographic film. After film has been developed, fixed, washed and rinsed in FILMEX, it dries in minutes and does not curl.

Copies of this new FILMEX bulletin can be obtained by addressing the Technical Literature Dept., U.S.I. Chemical News, 99 Park Ave., New York 16, N. Y.

CONTINUED *Fertilizers*

pacity is being added this year in the form of new plants. Most of the output of these new facilities will go for manufacture of wet-process phosphoric acid and superphosphates. Total capacity by the end of 1961—25 million tons.

### Change Due in Phosphate Use Pattern

Marketable phosphate rock output in the United States is estimated by the Bureau of Mines at 17.4 million long tons in 1960, 10% more than was produced in 1959. The Bureau reports that several expansions in phosphate production facilities in Florida are scheduled for completion this year.

Spokesmen for the Tennessee Valley Authority, another federal agency deeply concerned with fertilizers, expect that the trend to higher analysis materials will result in increased use of concentrated superphosphates, ammonium phosphates, phosphoric acid and other high analysis phosphates. Use of normal superphosphates is expected to decrease. A new 54% concentrated superphosphate has been developed which uses "superphosphoric" acid. The latter material is produced by a new TVA process.

Another new development reported by TVA is ammonium polyphosphate, with a typical analysis of 15-62-0. It can be used in solid mixed fertilizers, and is also said to be storable in solid form for quick conversion to liquid fertilizer as needed.

U.S.I.'s fertilizer raw materials production is centered at the company's Tuscola, Illinois, plant. A new ammonia storage tank designed to assure rapid delivery of ammonia, aqua ammonia, and nitrogen solutions during the fertilizer season has just been completed. U.S.I. also produces sulfuric acid for fertilizers at Dubuque, Iowa; De Soto, Kansas; and at Tuscola.

### TECHNICAL DEVELOPMENTS

*Information about manufacturers of these items may be obtained by writing U.S.I.*

**Isophthaloyl and terephthaloyl chlorides** now offered in semi-commercial quantities. Suggested as intermediates in polymer preparations and in organic synthesis for pharmaceuticals, dyes, etc. Available as high-purity flakes. **No. 1710**

**New recorder said to expedite gas chromatography** by charting peaks and areas simultaneously. Automatically integrates area while chromatogram is being recorded. Accuracy claimed to be ±0.5% full scale. **No. 1711**

**N-Methyl acetamide** – colorless, crystalline organic intermediate of 98.5+% purity, with melting point of about 28°C.–now available in semi-commercial quantities. **No. 1712**

**Safety guide covering emergency organization** in chemical plants can now be purchased at nominal price. Pamphlet stresses responsibility of management in developing and administering emergency plans; recommends procedures. **No. 1713**

**New general-purpose laboratory shaking bath** is claimed to be largest capacity standard shaking bath available with longest adjustable stroke. Designed to provide both continuous agitation and controlled temperatures. **No. 1714**

**Carbobenzoxy chloride** of 99.5-100% purity now on market. Said to be stable preparation which can be used and stored with minimum hazard. Ordinary potency is maintained so that in acylating, reaction is more complete. **No. 1715**

**First issue of Journal of Theoretical Biology** was released recently. New international periodical will publish original papers on generalized theories, theories of specific processes or phenomena, theoretical discussions of specific projects or methods, and the like. **No. 1716**

**New flow meter features removable flow tube** for convenient sterilization. Used to measure flows of pharmaceuticals, film emulsions, food ingredients and other conductive materials requiring accurate, sanitary measurement. **No. 1717**

**Molecular models** now offered are made of styrofoam. Scale: 1½ in. per angstrom. Color scale distinguishes ionic, covalent, polar bonds. Sizes of atoms proportional to partial charge. **No. 1718**

**First high performance, commercial atomic absorption spectrometer** for trace metal analysis has been developed. Designed with great flexibility to enable researchers to explore potential applications of atomic absorption and to point the way to future instrumentation. **No. 1719**

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# Coal Chemicals

**Sustained drive of steel rate toward acceptable working levels is spurring hopes of a second quarter sales record much improved over the first and, it's hoped, superior to any quarter in the past year since the recession struck. Benzene requirements continue high with prospects of an improved synthetic rubber picture promising to kick demand even higher. Supply is moving upward, too, with** only spot buyers having difficulty meeting needs. Showing marginal supply gains is naphthalene. Booming imports have helped—1.2 million pounds entered New York from abroad last week—but domestic suppliers still have a way to go to catch up with calls. Along these lines, high purity petronaphthalene is reported moving to one major intermediates producer at a price just under 12 cents a pound.

End of the year will see a new naphthalene processing plant rising in Toledo, Ohio, capable of supplying most of the west and midwest with chip, ball and flake naphthalene.

Phthalic is short but improving. Refined 2° pyridine is tight with spot prices extremely high. Maleic anhydride and fumaric acid are easy.

Production of steel in the week ended April 29 was 1,858,000 net tons, an increase of 4.1 percent from the previous week.

Based on assumed 1961 steel production capacity, rate of production for the week was 64.4 percent.

Production for the first seventeen weeks this year is 38.3 percent below the comparable period last year.

### Price Trends

**Advanced**
None

**Reduced**
None

**Comparative Price Indexes**
(100=1949 average)

| Last week | Prev. week | Last month | May 6, 1960 |
|---|---|---|---|
| 117.64 | 117.51 | 117.51 | 118.40 |

*For Current Prices see Page 10*

## Basic Products

**Benzene**—Trade sources continue to report improved supply.

Contract customers needs are being supplied without difficulty. Spot buyers find acquistion of large volume material difficult, however.

Improved steel rate promises to bring more supply from coke ovens although no actual increase is noted as yet.

All observers agree, however, that abundant supply will become available as the year progresses.

In fact, consumers are wary of new long-term commitments for fear that existing price structure will weaken as supplies increase.

One such reported example was described in this space last week. Since then further details have become available.

It appears that the prospective benzene supplier, a petroleum producer who expects to be on stream with a conversion unit late this year, has offered long-term contracts at 34c. a gallon, less ten percent, with a minimum price of 29c. rather than the straight 29c. quotation reported here last week.

**Coal Tar**—Production of crude material took a 4.5 percent dive in February.

Output was placed at 41.5 million gallons after a January total of 43.5 million gallons.

Sales of crude coal tar kept pace dropping 4.8 percent to 20 million gallons exclusive of tar transferred to affiliated companies. January's sales were tabbed at 21.1 million gallons.

**o-Cresol**—Refined grades in the higher melting brackets are reported in diminished supply.

Situation has been developing over the past half year with emphasis particularly noted since the first of the year.

Although not serious, the supply factor has caused at least one producer to cut back on exports in order to more fully service domestic customers.

Export business was rated excellent for the first quarter—until domestic calls took precedence.

**Naphthalene** — Plans to construct a naphthalene processing plant at Toledo, Ohio, have been announced by an eastern naphthalene processor.

Designed to produce naphthalene chip, ball and flakes, the processor claims the new plant will have the capacity to supply a "substantial part of the entire requirements of the midwest and western areas of the market."

Until the new plant is on stream sometime late this year, the firm's South Kearny, N.J., plant will supply the western market from July 1 onward.

During June the parent company will also add tetrachlorobenzene and trichlorobenzene to its existing stable of p-dichlorobenzene, o-dichlorobenzene, HCB and muriatic acid.

**Phenol**—Although phenolic resins volume is still mildly depressed, some trade sources are reporting phenol business in general has picked up considerably in the second quarter.

Esters application is one strong area mentioned by at least one producer.

Producers are pinning their hopes on renewed interest in phenolic resins and exhaustion of consumer inventories which were extremely high in the first quarter.

No further price pressure appears to be in evidence.

**Toluene**—Market conditions are favorable for toluene, producers report.

Demand is currently high and promises to gain. Startup of farm activities in the South and Southwest has brought heavy calls for toluene for agricultural solvents.

Producers indicate the Rio Grande Valley is the volume consumer because of the earlier start of planting operations there.

Good demand for toluene is also reported coming from producers of toluene diisocyanate. One observer comments that while initial promise of this area has not been fulfilled, TIC still remains a good area for growth.

From a production total of 100,000 pounds in 1955, TIC output grew to an estimated 35 million pounds last year and is expected to triple that amount by 1965.

Export market is marginally off the strong position held around the first of the year. Price, which had hit 19c. a gallon, is back to the 18½c. level.

Benzene conversion units are also reported taking sizeable volume on the basis of high benzene demand.

## Intermediates

**Monochlorobenzene** — Output of MCB plummeted to 75 million pounds in the first two months of this year after chalking up 106 million pounds in the same period last year.

Why the sharp decline in production and what effect, if any, has there been on sales?

Drop of over 30 million pounds of MCB production is accounted for by one producer by the fact that large volume "trade sales" were made in the first quarter last year until one supplier's plant came on stream.

This explanation appears borne out by production figures for the January-February period of 1959, a so-called normal year, which totaled 76 million pounds, or approximately the same as in the 1961 slot.

In effect, then, output thus far for 1961 is running according to past normal profile.

Another factor bearing out the belief that 1961 is not an unusual year is the calm attitude of producers in discussing sales.

Most term volume up to par although some observers point out that domestic DDT sales were in the doldrums in late fall and early winter. Heavy inventory building late last year in anticipation of a price increase for DDT had MCB consumers working off inventory through much of the first quarter.

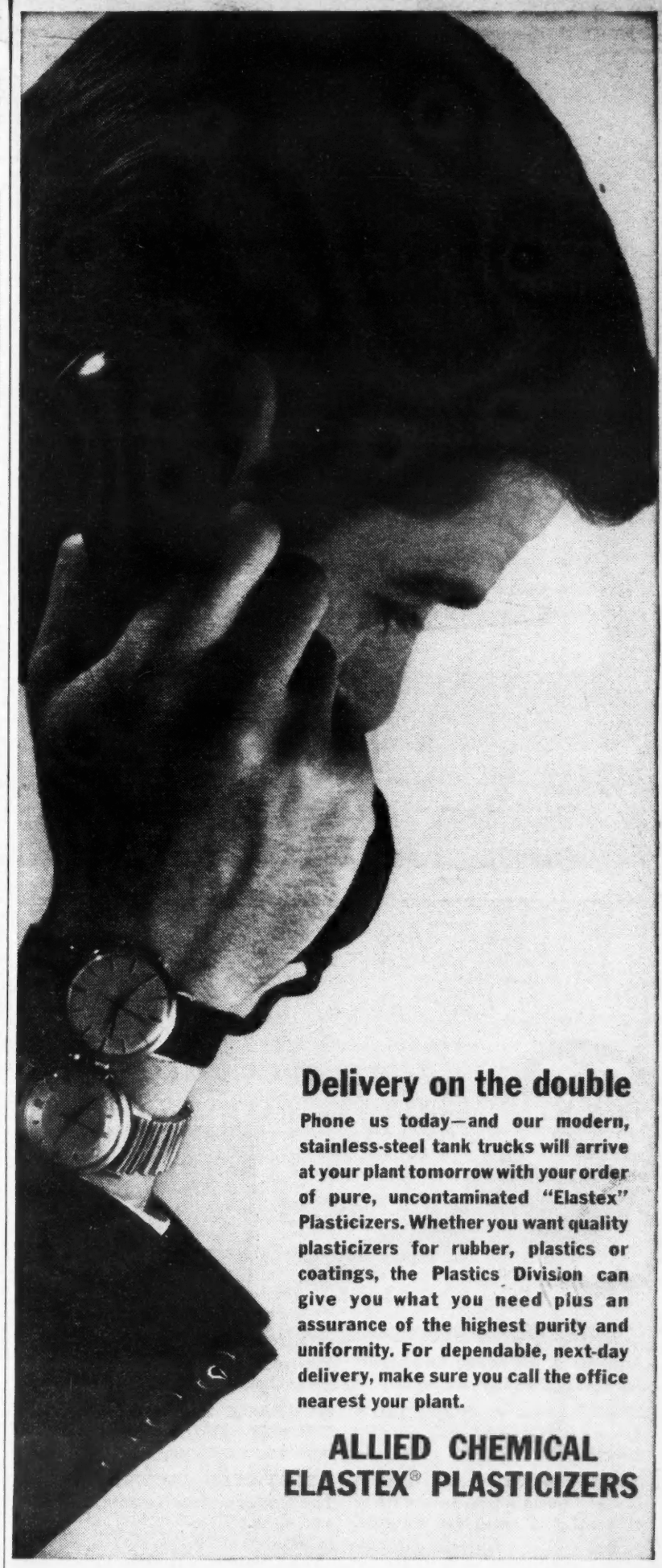
**b-Naphthol** — Calls from pharmaceu-

—*Continued on page 53*

### Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ended April 29, were as follows:

| | | |
|---|---|---|
| Ammonia liquor | lbs. | 555.886 |
| Ammonium sulfate | lbs. | 23.661.553 |
| Benzene | gals. | 2.548.684 |
| Coaltar | gals. | 12.858.790 |
| Crude chemical oil | gals. | 503.444 |
| Solvent naphtha | gals. | 83.907 |
| Toluene | gals. | 566.374 |
| Xylene | gals. | 157.326 |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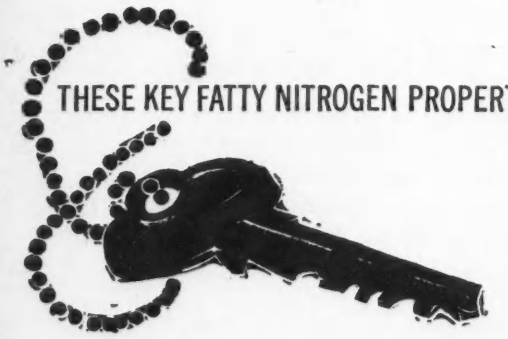

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## *Trade Name Chemicals*

# Melamine Makers Seen Dishing Up 150 Million Pounds of Resin in 1961

Based on an 11 percent increase in retail sales of melamine dinnerware last year and an anticipated increase of about 13 percent this year, observers are projecting resin consumption in 1961 of approximately 150 million pounds. Also figuring in projections is continued improvement in demand for melamine resins in decorative laminating and textile and protective coatings applications. Melamine resins make up about half of the total of amino resins produced, the other major share of the market going to urea materials. In the melamine resins area the bulk of material goes into molding compounds with laminating, coating and adhesive resins making up the balance.

Melamine-formaldehyde resins are offered by several major companies. Leader in the field is American Cyanamid Company which first introduced "Cymel" to the trade in the early 1940's. Other well-known tradenames on the market are "Plaskon" melamine resins from Allied Chemical Corporation, "Resimenes," produced by Monsanto Chemical Company.

**Whither Melamine Molding Compounds?**

Observers estimate about 90-95 percent of molding compounds produced go into dinnerware. This market has shown the greatest growth potential and the introduction of patterned dinnerware plus the wide variety of light colors made available have served to strengthen the outlet substantially.

Non-dinnerware consumption of molding compounds is about 15 million pounds with decorative laminates about 25 million. An additional 5-6 million pounds of urea-formaldehyde resin is used in laminates.

The Melamine Council estimates plastic dish sales this year will total about 150 million dishes and that one housewife in four now uses the unbreakable dinnerware. According to the council, best-selling price line last year was $27.50, a drop from the average $30.19 of 1959. The percentage of patterned dinnerware sold rose to 80.4 percent, an increase of about 9 percent over the previous year.

The molding compounds made for dinnerware and decorative coatings usually contain alpha-cellulose as a filler while industrial grades are often made up with glass fibers, asbestos, or wood flour for fillers.

A problem in this outlet has always been the coffee-stain effect produced on dinnerware over a period of time. There is great controversy in the industry over just what causes coffee-stain, and what remedy for it will eventually be found.

According to some, the effect is produced when the melamine surface wears away and a stain is adsorbed on the filler. However, other trade observers say that this is not so, since pure melamine will stain the same as any compounded product.

**Some Solutions to the Problem**

Some solutions to the problem have been offered. Last year Allied Chemical Corporation introduced a process and a product for minimizing coffee-stain. Tradenamed "Melaglaze," the product is a pure resin, compounded with other chemicals, but unfilled in the sense that melamines utilize a-cellulose as a filler.

"Melaglaze" is supplied as a fine or granular powder which may be applied to a flat plate as a one-half mil film during the molding process.

Allied reports the product has proven effective in improving coffee-stain resistance when dishes are hand washed. Also, the company points out, when stains which have accumulated over a period of time are removed with common baking soda, a "Melaglaze" film will facilitate removal of the stains.

Working on the same problem, American Cyanamid Company has developed "Cymel 1070" as a melamine glazing compound for use in the molding of dinnerware. Another Cyanamid product, designated by an experimental number, "WE-8670-C," is being developed for use where a decorative overlay is to be applied to dinnerware. The product is termed a single package, pre-catalyzed, fast-cure melamine which permits the molder to decorate molded plates with a much faster molding cycle.

## MELAMINE RESIN SALES PICTURE

| | |
|---|---|
| 1961 . . . | *150.0 million lbs. |
| 1960 . . . | *138.0 million lbs. |
| 1959 . . . | 127.5 million lbs. |
| 1958 . . . | 102.5 million lbs. |
| 1957 . . . | 76.1 million lbs. |
| 1956 . . . | 63.6 million lbs. |
| 1955 . . . | 60.7 million lbs. |

*Estimate

Source: Tariff Commission

In the protective coatings area, products are marketed as alkylated melamine formaldehyde resins. The most often used alkylating agent is butanol with some specialty products available which replace part of the butanol with a higher alcohol to improve compatibility with other solvents.

Xylene is used with butanol in producing baking enamels for automotive and appliance industries. Solids content usually runs around 50 percent.

Melamine coating resins may contain urea, to lower the cost, and an alkyd resin, which serves as a plasticizer, to make the product more shatter-proof.

As with other baking-type finishes, the search here is always for a speedier cure at lower temperatures. A comparative breakdown of urea and melamine resin end-use markets indicates protective coating resins, decorative laminating resins and paper-coating resins each contribute about 8 percent of the total market. Big users are producers of molding compounds and plywood laminates (each about 30 percent).

**Allied Chemical and Monsanto**

For the coating industry Allied Chemical Corporation markets "Plaskon Melamine Coating Resins" for use in the automotive and appliance industries as well as other industrial applications. Truckload prices in drums range from 34¾ cents to 36¾ cents on a delivered basis.

Monsanto Chemical Company supplies the "Resimene 870-880" series for surface coating uses. Most popular products are "Resimene 875" (50 percent resin solids in xylene-butanol) and "Resimene 831" (60 percent resin solids in xylene-butanol).

Recently Monsanto introduced "Resimene 872," an etherfied melamine formaldehyde resin of 50 percent solids content in isobutanol. The new product was designed for producing glossy and durable auto body enamels that cure quickly at relatively low temperatures without catalyst, Monsanto reports.

Prices of the melamines are relatively high—35 to 45 cents a pound, depending on the application—but for specific end-uses they are the preferred products.

In molding compounds, for example, producers have continued attempts to extend non-dinnerware applications. It is felt there is a place in the kitchen for colorful melamine products for use in appliances and hardware, replacing the browns and blacks that are now used.

In dispenser caps and bottle closures, melamines have met with some success. There is a trend to decorating cosmetic jar caps with a floral design. In this type of application, melamine and urea-for-

*—Continued on page 65*

# Agricultural Chemicals

Stimulated by the government's grain bank program, discouraged by an abnormally wet spring, farmers have postponed large-scale fertilizer operations in many areas of the country. The effect on fertilizer shipments has been severe, trade sources report. Potash producers, anticipating a tremendous season, concerned over a possible tight supply situation developing, will now have to settle for middling sales this season.

The government grain bank program is reported to be encouraging farmers to take acreage out of corn production, thus reducing the demand for potash in fertilizer formulations.

Despite the revised market picture for potash this season, one producer will boost listings for potassium muriate two cents per unit on standard potash, and 4 cents per unit for coarse or granular material. Sulfate of potash will also go up three cents per unit $K_2O$.

The higher differential on the granular and coarse potash is a result of the increased popularity for granular potash, as well as increased costs of production. In recent years, producers report that the popularity of the granular potash has made it harder to move the standard material. The lower price for standard potash, it is hoped, will attract more customers.

Fishmeal and scrap listings continued to regain the ground lost in the past year. Prices were reported in the range of $108 to $110 per ton with some indication that listings may go higher in the coming weeks.

### Price Trends

**Advanced**

Fishmeal and scrap, $2 per ton.

**Reduced**

None

**Comparative Price Indexes**

(100=1949 average)

| Last week | Prev. week | Last month | May 6, 1960 |
|---|---|---|---|
| 111.70 | 111.70 | 111.65 | 109.97 |

*For Current Prices see page 10*

## Animal and Plant Foods

**Ammonium Sulfate**—Peak season use for fertilizer grade ammonium sulfate is just about over in some areas, reports trade sources. Shipments are reported at very good levels, with the only sore point in the market centering on the tight supplies of the sulfate. Trade sources report that demand continues to outstrip supplies by a fair margin. Listings for ammonium sulfate are reported to be holding at their previously announced positions, some spot material may be commanding premiums in the tight market, sources say.

**Animal Proteins**—The market for fishmeal and scrap held to its recent gains and gave indications that higher prices may be in store for the market. Last week, prices for fishmeal were in the range of $108 to $110 per ton, bagged, on both Atlantic and Gulf coasts. The new price narrowed the range by $2 per ton since the previous week. Quotations of $115 per ton were reported in some instances, giving some sources in the trade the impression that meal may go still higher in the weeks to come.

**Potash**—Listings for the 1961-62 fertilizer season have been announced by one leading producer. The new schedule calls for increases of 2c. per unit for $K_2O$ for standard muriate and boosts of 4c. per unit for coarse or granular muriate. Potash shipped in bags will also be increased $2.40 per ton. Sulfate of potash will be up by 3c. per unit $K_2O$.

For muriate shipped in the months indicated, against contracts made prior to July 1, 1960, the producers schedule is as follows:

- July-August, 35c. per unit for standard, 38c. per unit for coarse or granular.
- Sept.-Oct., 36c. per unit for standard, 39c. per unit for coarse or granular.
- November, 1961-Jan. '62, 37c. per unit for standard, 40c. per unit for coarse or granular.
- Feb.-June, 1962, 40c. per unit for standard, 43c. per unit for coarse or granular.

Sulfate of potash will be 65.5c. per unit for shipments in July-August, 1961; 70.5c. per unit in Oct.-Dec.; and 73.5 per unit for Jan.-June, 1962.

### Pesticides Output

Following are production statistics reported by the Tariff Commission representing the number of pounds of certain pesticides produced during February, with January's production figures supplied for comparison:

| | January | February |
|---|---|---|
| DDT | 15,169,735 | 13,428,205 |
| 2,4-D | 3,458,382 | 2,929,477 |
| Ester & Salts | 2,150,512 | 2,216,136 |
| Acid equivalent | *1,560,877 | 1,583,903 |
| BHC | 3,328,490 | 3,418,111 |
| Gamma isomer | 670,362 | 906,879 |
| 2,4,5-T | ..... | 479,212 |

* Partly estimated.

## Pesticides

All planes arriving at New York from Paris are being sprayed with insecticides to destroy a foreign beetle that threatens American agriculture, the US Department of Agriculture reports.

This major European plant pest, a chafer not found in North America, has suddenly appeared in numbers on airplanes arriving from Paris at Idlewild International Airport. The reddish-brown beetle, **Malolontha melolontha**, belongs to the same family as the destructive Japanese beetle, which costs American farmers and city dwellers $10 million annually.

Other measures being taken to prevent the insect's entry into this country include sending a plant quarantine inspector to Paris to work with airlines and French authorities in an effort to eliminate the pests from planes before they take off for the US.

In Europe, the chafer attacks more than sixty different fruits, vegetables, field crops, ornemental plants and trees. England reports losses amounting to $280 per acre to crops of orchards in a single season under outbreak conditions USDA reports that larve (grubs) have caused up to 65 percent loss of peas and beans on English farms.

Under a program of the ARS Plant Pest Control Division, long-lasting soil insecticides are being applied to more than 10,000 acres of airport grounds in the northeastern Great Lakes and middle Atlantic states. Eventually, all major US airports will receive such treatment.

**DDT**—The domestic market for DDT continues on the quiet side as consumers are reported to be working off large inventories built up last fall. At that time, consumers re-stocked inventories to beat a price increase, sources report. The high level of stocks, and the off-season demand has combined to lesson domestic market activity. Producers are anticipating the usual spurt in demand that comes with the warmer months.

In regard to a report that the USDA and the Food & Drug Administration are studying chlorinated insecticide residue on cotton crops, one producer had this to say: It is very doubtful that the study will be completed before the end of the 1961 season and any new regulations that come out of the study will probably go into effect with 1962 season.

In addition, the source feels that any new regulations that might be proposed, will go no further than requiring new labeling, or changes in spray applications.

## Agricultural Chemical Briefs

**FUMIGANT PRICE CHANGE:** Dow Chemical Company, Midland, Mich., has announced a new wholesale price for its "Dowfume MC-2," a soil fumigant, sold to resellers. Prices for "Dowfume" are 55c. a pound for truck load quantities and 56c., l.c.l. The new price applies to the area east of and excluding, Arizona, Utah, Wyoming and Montana. Prices in the balance of the US remain unchanged.

**WETTABLE "SEVIN" OFFERED:** Marketing of a new type of "Sevin Sprayable" insecticide formulation has begun by Union Carbide Chemicals Company, New York, division of Union Carbide Corporation. "Sevin Sprayable" is an 80 percent superfine wettable powder designed for ground or air application in low-volume sprays on cotton. The insecticide is said to stay in suspension longer and go back into suspension with normal agitation of the mixture.


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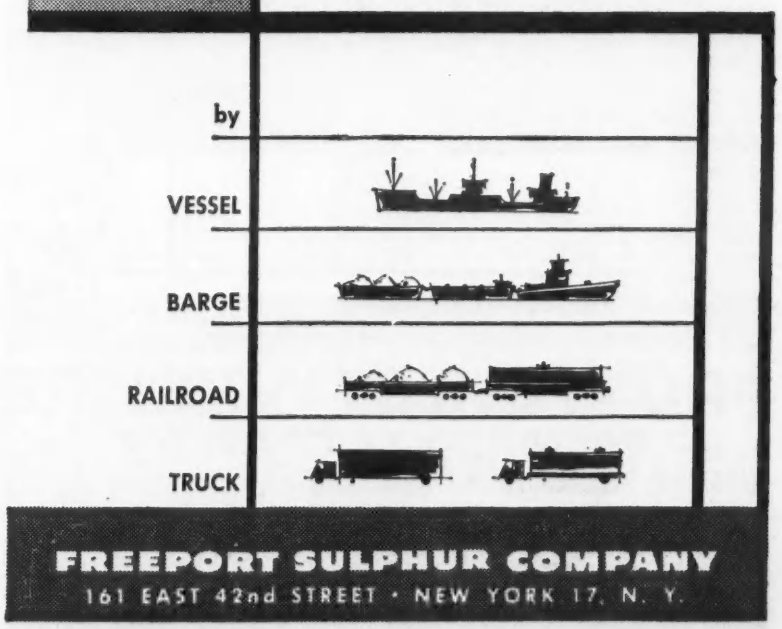


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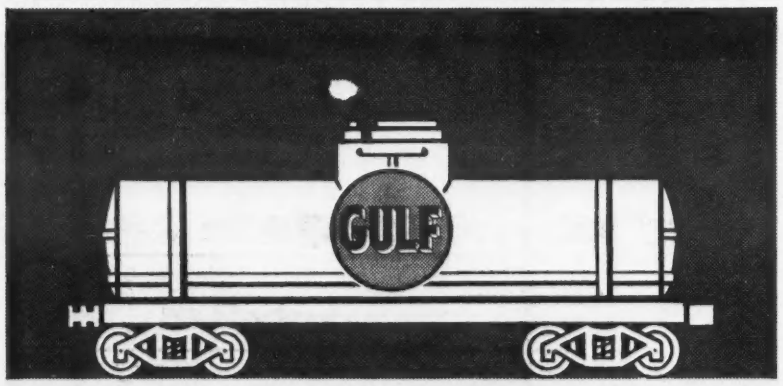


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# Aliphatic Organics

Major glycerine producers, following a competitor's May Day move, cut prices 2¼ cents a pound across the board in first-of-the-week actions. Resulting schedules, on a tankcar delivered basis, put USP chemically pure 96 percent glycerine at 24 cents a pound; 99.5 percent at 25 cents a pound, and 99 percent CP and high gravity grades, which are offered by several of the leading soapers, at 24⅞ cents and 24¾ cents a pound, respectively.

Mid-week, in a closely related move, triacetin prices were dropped 1 cent a pound across-the-board by a major producer. New schedule, which is retroactive to May 1, lists tankcars at 35½ cents a pound and carloads at 38 cents a pound, delivered East.

World market conditions reportedly precipitated the glycerine reduction—the third since late December. Now, according to some trade people, the lower levels will facilitate an even, continual flow of US product overseas, and, perhaps, still the voice of foreign competition heard of late in the land.

Within the last six months, it's known, a major European chemicals producer, having recently expanded its synthetic glycerine facilities in France, has canvassed the US market for business. So far, its success is thought to be negligible but the threat to continued market stability obviously is strong in light of this and several other developments.

• Recent expansion of facilities in The Netherlands by a US synthetic glycerine producer has further increased the available supply in Europe, and caused a corresponding drop-off in demand for crude stock.

• Strong possibility that one or more firms in Japan will be licensed by the European firm referred to above adds, of course, to the likelihood of greater imports and a smaller export market.

• Greater competition is expected with the market debut of two US firms who have announced plans for glycerine facilities. One of these will utilize a molasses process and its project goes unquestioned. Not so, however, the other. In fact, that the firm has gotten beyond the initial ground-breaking stage—it will admit publicly to no further progress—is not generally known.

This lack of information has, of course, stimulated trade speculation. This finds the firm's management split on the feasibility of a glycerine plant—despite the fact that it would be built under a special fast tax write-off incentive program—and wishful thinking is that the lower prices may now give the "opposed" camp a good arguing point.

The recent death of one member of the firm and the resignation of another, both of whom strongly favored the firm's entrance into the glycerine business, reportedly, are also factors open to interpretation.

• Growth of crude production as a by-product of up-trending fatty alcohol output without a commensurate rise in consumption has also added to the surplus. By-product glycerine production has not dropped as rapidly as soap production, as one might suspect, because higher-grade fats are now being used by soapers, it's said.

• Build-up of stocks is also pressing on prices. At the beginning of April, producers held 63.5 million pounds, 2.9 million pounds greater than inventories thirty days earlier, and 21.6 million pounds higher than those held a year earlier.

March production, according to Commerce department statistics relayed to OPD by Glycerine Producers' Association, amounted to 24.6 million pounds of crude and synthetic, and 23.3 million pounds of refined.

**Corn Syrup**—The 35c. per cwt. special allowance, granted to customers by a major manufacturer of corn syrup on February 13, will be withdrawn on May 13. The same date, the firm will reduce prices 35c. per cwt.

OPD, on February 27, reported that the move was seen by trade people as a temporary measure likely to be rescinded within ninety days.

Under the new schedule, the tankcar price is $5.95 per cwt., the carload price for tightened non-returnable drums, $6.88 per cwt.

### Price Trends

**Advanced**
Molasses, New Orleans, ½c. per gal.

**Reduced**
Glycerine, syn., nat'l refd., 2¼c. per lb.
Triacetin, 1c. per lb.

**Comparative Price Indexes**
(100=1949 average)

| Last week | Prev. week | Last month | May 6, 1960 |
|---|---|---|---|
| 130.46 | 130.48 | 130.53 | 132.19 |

*For Current Prices see page 10*

**Ethanol**—U.S. Department of Agriculture's scheduled sale of stockpiled corn has stirred up little opposition on the part of makers of synthetic alcohol—and rightly so.

Profiting from earlier mistakes, USDA has conditioned its current offering in such a way that no one in the business can possibly be hurt—neither does anyone stand to profit a great deal.

The last fact has probably discouraged some interest in the sale—that and the widely-held belief that USDA has planned the sale with only one buyer in mind. This is the firm which purchased considerable quantities of molasses from Cuba in 1960 and presumably had intended to contract for similarly large amounts this year.

It is not necessary for any US firm to import molasses from Cuba, it's said, because supplies are freely available from South America, the Philippine Republic, and elsewhere. This material, however—and here's the rub—is relatively high-priced compared to that offered from Cuba for industrial purposes.

USDA can apparently sell its stockpiled corn at a comparable price, and in sufficient quantity to allow the firm to retain its established position in the market.

Fifteen million bushels of corn, the limit set on the offering, could produce up to 37½ million gallons of alcohol according to one estimate, as much as 43 million gallons according to a second.

**Methanol**—Methanol production in February was almost 30 million pounds under the January level, but in light of other recent developments, the decline presumably reflected nothing more serious that the generally sluggish pace of the economy and the anticipated smaller requirement due to the short month.

Currently, trade sources report active demand, and a quickening of the uptrend first detected in March sales statistics. (Incidentally, the largest open-market seller of the chemical was one of the few chemical firms to report higher first quarter earnings.)

Expansion plans announced by a large captive producer of the chemical are causing trade people to speculate as to possible new applications. And as they can see none on the horizon, their confusion grows. Antifreeze market a potential growth area? a trade member asks.

**Molasses** — Markets for feeding cane molasses were firm in the South and steady in the remainder of the nation during the week ended May 2. The slow to moderate demand was for immediate needs only and although supplies were adequate at all markets, some distributors held only limited stocks, Agricultural Marketing Service reports.

New Orleans prices ranged from 14c. to 14½c. a gallon but most trading was conducted at the lower level.

Molasses used in the production of alcohol and spirits during February amounted to 1.1 million wine gallons, about 10 percent more than the quantity used in January and 60 percent more than that used in February 1960.

Molasses used for this purpose in the first two months of this year totaled 2.1 million gallons, down from 3.1 million gallons in the comparable period in '60, the Internal Revenue Service notes.

**Pentaerythritol**—With glycerine prices now 4½c. a pound below schedules quoted only four months ago, there's a distinct possibility that manufacturers of pentaerythritol—and other chemicals that are glycerine competitors, as well—will find it necessary to cut prices commensurately or lose some business.

PE competes with glycerine in the alkyd

## Aliphatic Organics

resin field and has, in fact, made serious inroads in this large market.

Sources contacted late last week noted that serious thought would definitely be given to the possibility of posting lower prices. A decision should be received this week, they added.

Sorbitol is another glycerine competitor —as a humectant—and something could happen here, of course.

**Sucrose**—Since mid-April, following a 15c. price cut, sucrose has been quoted, unchanged, at $9.40 a cwt., f.o.b. eastern refinery. Stability at this level seems highly likely as there is no longer any immediate prospect of Cuban sugar entering the U.S.

Florida sugar cane grinding mills have completed operations for this season. Final official report shows 1,618,399 tons of cane ground through April 13. Raw sugar produced amounted to 159,135 short tons.

Official data are not yet available to indicate the amount of blackstrap molasses produced during the Florida sugar cane grinding season. Unofficial reports, however, indicate that output may total 8 million gallons.

**Triacetin** — A major producer has dropped prices for triacetin 1c. a pound across the board. Under the new schedule, which is retroactive to May 1, the tank-car or tank truck quotation becomes 35½c. a pound; the car— or truckload, 38c. a pound, and the less carload 39½c. a pound.

The reduction follows the drop in the price of glycerine from which triacetin is derived.

## *Europe: What's Up?*

—*Continued from page 7*

oil refineries in setting up a Frankfurt refinery for some time.

The chlorine expansion involves Farbenfabriken Bayer of Leverkusen, which is stepping up its chlorine capacity. A first-stage electrolysis plant with 30,000 metric tons of annual capacity will be built at Uerdingen and a second unit will boost capacity 50 percent. A third, to add another 50 percent, is being planned.

Total Bayer output of chlorine now is about 170,000 metric tons a year. German chemical executives have started comparing chlorine with sulfuric acid as a basic measuring stick of modern chemical industrial activity.

Associated Chemical, whose capital spending in 1960 was over $2.8 million (about two-thirds of it going for modernization of its chrome chemicals facilities), reports sales of industrial chemicals were up 10 percent last year.

Sales of fertilizers and animal feeds, the company says, were "consistent with the national trend." Associated Chemical reports its exports of industrial chemicals in '60 were up 21 percent.

The French process treats the silica and phosphorus ores at a temperature of about 260 degrees Fahrenheit. In the process, the iron content of the ores is raised from 31 percent to 47 percent, with a yield of 97 percent.

The caustic soda treatment is said to reduce the silica content by 60 percent and the phosphorus content by 80 percent. The phosphorus can then be recovered for fertilizer production.

Process used in the Spanish acetic acid plant was developed by the French firm Usines de Melle and the equipment was supplied by Bignier-Schmid-Laurent, a French engineering firm.

## Dewey & Almy's 'Daran' Being Offered Commercially

"Daran" high barrier paper coating latex is now available in commercial quantities from a plant just placed on stream by Dewey & Almy Chemical Division of W. R. Grace & Co., Cambridge, Mass.

The plant is located at the division's Acton, Mass., organic chemicals plant, which produces butadiene styrene latexes and resins and polyvinyl acetate emulsions. Cost and capacity of the new facility were not stated.

"Daran"' is being shipped to paper mills in many parts of the country for use in commercial production or evaluation of papers and paperboard, the company says.

## *Drug Makers Steal March*

—*Continued from page 5*

of quality by the manufacturer or by others in distribution, it is added, involve such factors as the layout of the plant or other facilities, the procurement of raw materials, and all intervening operations up to the delivery of the products to the consumer.

The statement of principles contains the following list of specific considerations which it said ordinarily form the basis of a quality control system:

1. Buildings for manufacturing, testing, and storage operations are of adequate design, size and construction to: (a) provide for proper receipts and storage of raw materials; (b) allow proper segregation and identification of material during manufacturing and packaging; (c) provide for ease in maintaining cleanliness and for avoiding contamination; (d) provide suitable sampling facilities; (e) provide adequate laboratory facilities; and (f) provide proper storage for final products.

2. Equipment is—(a) properly located; (b) adequate for the required operations; (c) constructed to facilitate cleaning; and (d) properly maintained.

3. Raw materials are controlled by—(a) establishment of suitable specifications; (b) development of adequate test procedures; (c) specific identification markings; (d) proper storage conditions; (e) adequate sampling; (f) appropriate testing; (g) requiring compliance with specifications; (h) providing for quality control release and (i) maintaining records and samples whenever appropriate.

4. Manufacturing operations are controlled by—(a) use of a suitable batch numbering system; (b) preparation of formula for batch records; (c) checking of ingredients for identity, weight and measure; (d) maintaining identity during processing; (e) checking quality during processing; (f) checking yield against theory; (g) adequate sampling and testing; (h) requiring compliance with specifications; and (i) maintaining appropriate records and samples.

5. Packaging and finishing are controlled by—(a) establishment of specifications for packaging and packaging operations; (b) a formal procedure providing for inspection and issuance of packaging materials including labels and labeling; (c) providing for the proper disposition of unused labels and labeling; (d) use of suitable batch, lot or contral numbers; (e) maintaining identity of product before and during packaging; (f) checking yield against theory; (g) sampling and checking for compliance with specifications; (h) providing for release by quality control; and (i) and maintaining appropriate records and samples.

6. Finished stock quality is maintained by—(a) providing proper storage conditions; (b) collection and review of stability data; (c) investigating all significant complaints concerning quality of products; and (d) providing for the disposition of returned goods.


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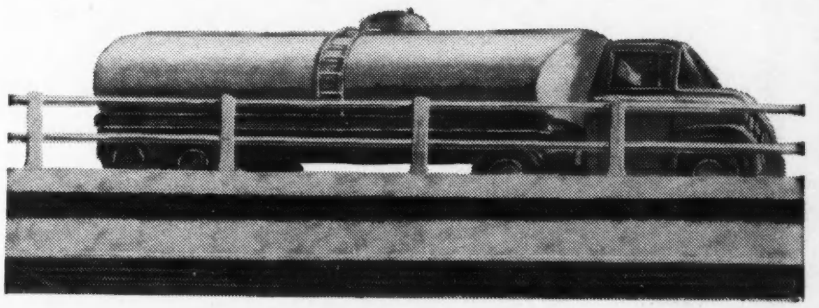


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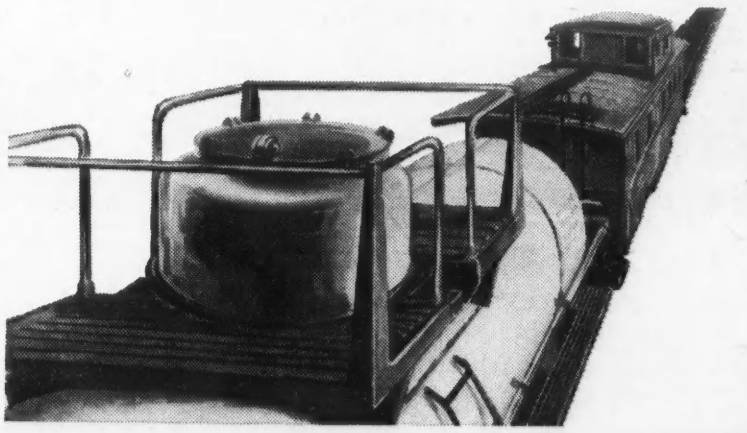

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# PHARMACEUTICAL MANUFACTURERS ASSOCIATION

**THIRD ANNUAL MEETING**

**White Sulphur Springs, W. Va.**

**MAY 1-3**

## Drug Men Advised to Proclaim, Not Apologize for, Their Profits

Don't apoligize for your profits! That's what Dr. Claude Robinson, chairman of Opinion Research Corporation of Princeton, N. J., advised the ethical drug industry. "Glory in them, defend them, proclaim them," he declared in an address before the Pharmaceutical Manufacturers Association, "but never apologize for profits that are earned in competition to serve the public." He maintained that the drug makers have "a good thing going" for the American people to which profits seem to be the key—or one of the keys, at least.

"If profits of drug companies were cut in half," Dr. Robinson told the pharmaceutical executives, "it would mean only a few pennies to the buyers in savings, and . . . a profit decline would almost certainly be followed by less willingness on the part of your boards of directors to take the risks that have resulted in the development of the miracle drugs."

He indicated that there are some industry people who want to make drug profits seem lower than they are. There's no point to that, he said, as the industry's profits are a matter of record.

**Drug Industry Profits Reported**

"The facts are very clear," Dr. Robinson pointed out. "This [the drug] industry makes 10 to 11 cents on dollar sales. It makes, on the average, about 20 cents per dollar investment.

"In all manufacturing, there is a profit of 4 to 5 cents, and about 10 cents per dollar investment, according to income tax accounting."

Pharmaceutical profits are high, he made clear, because the industry's risk is likewise high.

Here, Dr. Robinson said, are some case histories:

- Merck & Co. had 79 percent of the cortisone market in 1950. By 1958, there were twenty-nine companies offering steroid products for prescription, and Merck's share of the market fell away to 3 percent.
- Cortisone, priced at $200 a gram in 1949, was down to $2 a gram ten years later.
- The severe drop in penicillin prices "made quite poor reading" for drug company stockholders "after the great plunge got under way."
- Some 114,000 chemical compounds were tested in 1958, and of these 24,865 were promising enough to be clinically tested. How many finally reached the market? About forty compounds.

**Cost to Market a New Drug: $6 Million**

Source of this last case history was the testimony of Dr. Austin Smith, PMA president, before the Kefauver committee. Dr. Smith also testified that the cost to market a new drug is in the neighborhood of $6 million, Dr. Robinson reported.

"The benefits of these high risks are very great," the opinion research expert declared. "They are great to the owner, because he makes a good profit.

"They are perfectly tremendous for the

—Continued on page 45

Dr. Austin Smith

## Ethical Drugs Face Three Critical Years

The next three years "may well be the most critical period in the history of the pharmaceutical industry." That's how Dr. Austin Smith, president of the Pharmaceutical Manufacturers Association, sizes up the near-term outlook.

"Too many do not appreciate, even if they know, the significance of the many changes occurring around us," he told PMA.

**Things Worse Before They're Better**

"And things will be worse before they improve because of the impetus gained by those with a dedicated desire to flourish on publicity or to change a way of life.

"No one for even a moment should believe we are going to return to a 'business as usual' position during the next few months. Whoever entertains such a belief is more naive than he has a right to be."

Calling for active participation by the association members—large and small alike—in the troubled days ahead, the PMA president pointed out that it is often not appreciated that "as freedom is lost

—Continued on page 44

## Drug Industry Survival Rx: More Communication Between Medicine Makers and Public

If the pharmaceutical industry is to survive as an "effective independent" unit of the health team, it must now come to grips with a new dimension which goes beyond research, production and marketing: the pressing need for a "heightened interchange" between the drug makers and the public—each exerting a greater influence on the other. So prescribed Eugene N. Beesley, newly-elected chairman of the Pharmaceutical Manufacturers Association, last week at PMA's third annual meeting in White Sulphur Springs, W. Va.

Eugene N. Beesley

Mr. Beesley, who is president of Eli Lilly & Co., Indianapolis, Ind., pointed out that while the industry has made "immeasurable progress in the conquest of disease" during the past decade—the market value of ethical drugs in 1960, for instance, was almost two and a half times what it was in 1950—it has "during most of the past" been "quite sheltered from the powerful forces of public and political opinion."

"To express it simply," he said, "the public paid little attention to us, and we, in turn, paid relatively little attention to public opinion.

> ***Quality Control Stand Taken***
>
> Pharmaceutical Manufacturers Association's board last week adopted a statement of general principles of quality control in the drug industry. The policy statement, offered by the association as a guide to pharmaceutical producers in this highly-sensitive area, caps more than a dozen years of discussion of the problem by industry leaders. (A complete story appears on page 5 of this issue.)

"Our position as an aid to the medical profession led us to feel that we had little duty—in fact, little right—to speak directly to the public.

"As our products have become increasingly important to more and more people," Mr. Beesley continued, "these old relationships have been transformed. Public awareness of medical matters in general and of our industry in particular has greatly increased.

"The political attention which we have received recently should be recognized as clear evidence of this expanded public interest. It is an acknowledgment that we now matter greatly to many millions of people.

**Impact of Public Opinion**

"And, conversely, in view of the events of the past year and possible consequences yet to come, I am sure you will agree that the impact of public and political opinion is now far more important to us."

The PMA chairman suggested that the drug industry has entered "a different environment" to which it must adjust. In fact, he added, the task of adjusting must receive a "high priority."

To meet this challenge, Mr. Beesley proposed that pharmaceutical makers look in two directions—inward toward their own operations and outward toward their larger role in society.

"Looking inward to our own operations," he went on, "we must be sure that we are constantly pushing on to higher and higher standards of performance.

"We must seek, in fact, to be tough on ourselves, so self-disciplined that the public will become aware that our own stand-

—Continued on page 42

## Gov't-Industry War Must Be Halted: Loynd

At this point in its history, the nation can ill afford "a continuous war between business and government." That's the opinion of Harry J. Loynd, outgoing chairman of the Pharmaceutical Manufacturers Association.

"The time has arrived," he told PMA, "when we must set down the rules—rules based on good, sound economic facts, not political ambitions—and then have guts enough to stand up and defend them."

Mr. Loynd, who is president of Parke, Davis & Co., Detroit, Mich., charged that there are people in government who want to further control the drug industry until it becomes "a corseted, intolerably suppressed group of manufacturers."

**Socialized Industry 'Just a Step Away'**

"If we submit to this creeping government control of manufacturing, licensing, clinical testing," he argued, "then a socialized industry is just a step away.

"And with it would come the inevitable reduction in earnings which would reflect itself in lower tax revenues. Thus, hurting the government which created the situation in the first place.

"I'd like to repeat," he continued, "what I've said publicly several times before: It is no crime to make money, providing you make it honestly and distribute it fairly.

"We must offer our products to our people at a fair price, but we must also make a profit sufficient enough to invest

—Continued on page 48

> ***PMA Votes to Raise Its Dues 50 Percent***
>
> Pharmaceutical Manufacturers Association last week voted to raise its yearly dues by 50 percent.
>
> The increase applies to PMA member firms with an annual sales volume of $1 million or more. Member companies doing a yearly business of less than $1 million are unaffected by the action.
>
> The dues for associate members of PMA goes up from $1,000 a year to $2,000.
>
> Last year the association made it clear it intended to step up its spending during 1960-61 by 50 percent. At that time, its 1959-60 budget was described as "already out of date."

## PR: What Are Pharmaceutical Makers Planning Next?

The drug industry is moving into high gear to expand its already rapidly-growing public relations program. The latest steps, according to William Kloepfer, jr., director of public information for the Pharmaceutical Manufacturers Association, are these:

- PMA is planning to review all industry-made motion pictures to see which ones have any public interest. Those that do will be cataloged for use by educational and other lay groups.
- The association intends to sponsor a tour of pharmaceutical facilities for lay writers. The idea here is to show political writers, news writers and other opinion molders just how the industry operates its business.

Under consideration is a plan to improve the PMA's public speaking program. What is envisioned is a series of conferences of industry personnel aimed at bettering school education efforts and at upgrading employee communications.

Also being weighed is a scheme proposed by the Pharmaceutical Advertising Club of New York. This involves the use of waste paper trimmed from drug promotional material on which will be imprinted industry messages. These will be used as "stuffers" in prescription items sold in retail pharmacies.

PMA is similarly mulling over a program to encourage area projects. This would be patterned after the Legislator's Days of a New Jersey drug company and Drug Progress Week, which was sponsored by a Philadelphia firm.

Other projects under consideration:

- A compilation of information sources

—Continued on page 44

**PMA Meeting Report**

# *Drug Industry Survival Rx: More Communication*

—*Continued from page 40*

ards are higher than any which would be set by the government itself."

Mr. Beesley contended that the industry must follow the principles upon which its tradition of service has been built and which are the "prerequisites to maximum contribution by our industry to the health of the people."

"First," he stressed, "we need to engage in strong, continuous programs of medical research. The competitive quest by private companies for medical advances, employing a variety of approaches, has been a cornerstone of health progress in the past and is one of the surest gurantees of future progress. Medical research by our industry is, indeed, a public responsibility.

"Second, we must assure ourselves that new medicines are introduced only after their medical value and safety have been thoroughly proved in the most careful and objective clinical trials.

"Third, we want to continue to produce all essential medicines, even though some of these may be required by only a few patients and, thus, have little or no sales and profit potential.

**Accurate Scientific Data Needed**

"Fourth, we must provide full and accurate scientific information to physicians and pharmacists on the proper use of our medicines, avoiding unprofessional practices and gimmicks.

"Fifth, we must continue to seek to reduce the costs and, thus, the price of medicines. This must be done without undermining our economic strength and vigor and without sacrificing quality for economy.

"And sixth, we need to cooperate with other members of the health team—physicians, pharmacists, hospitals, medical schools, to name a few—to achieve better medical care overall."

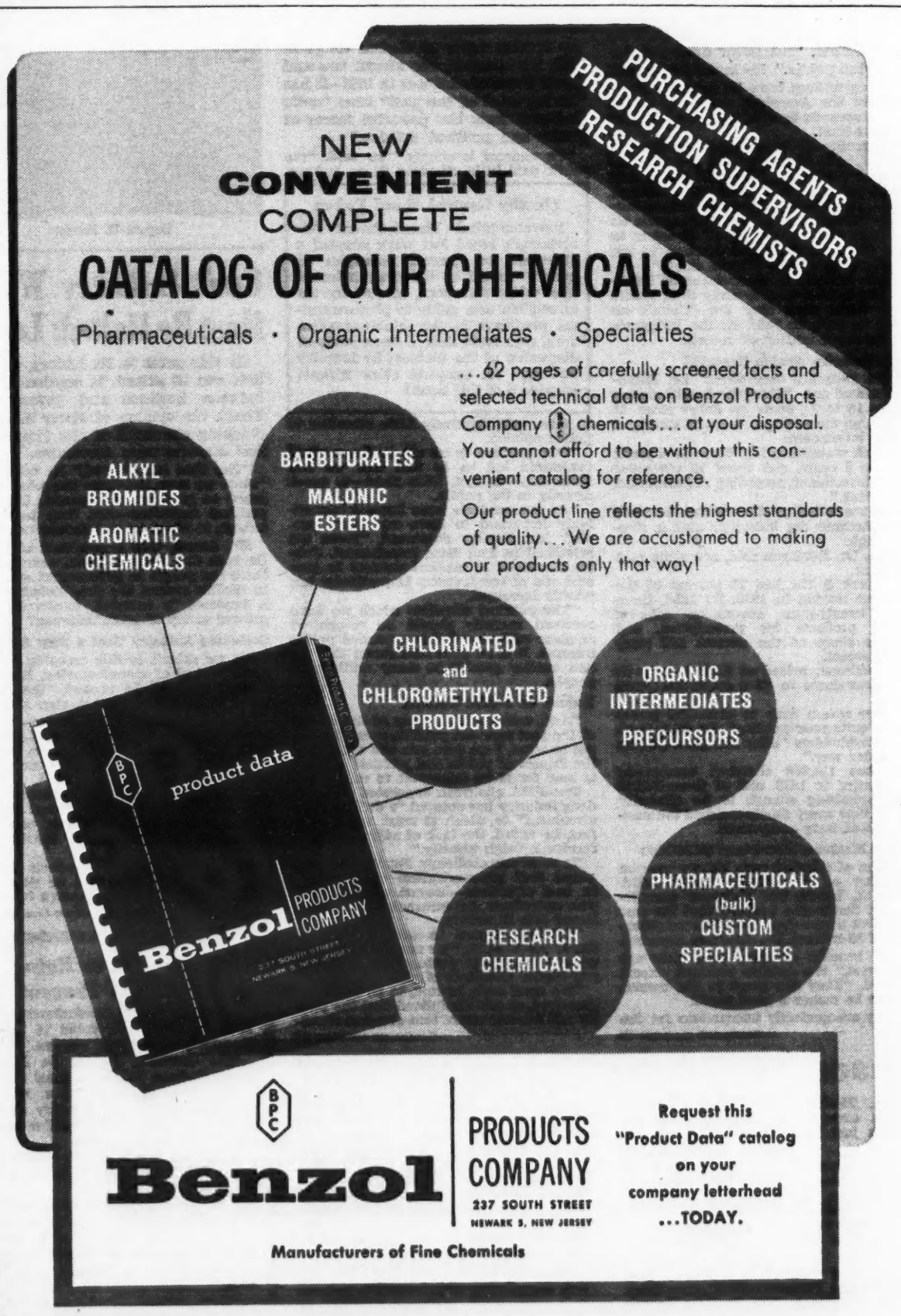
In their look outward to public opinion, drug makers should seek opportunities for developing sound decisions on important health issues, including medical care for the aged, Mr. Beesley maintained.

"We should not hesitate," he said, "to endorse sound proposals which will promote the public interest and health progess. We should not be reticent in initiating recommendations of our own. And we should not hesitate to speak out against those principles which are unwise or against the public interest.

"However," he added, "I hope that the Pharmaceutical Manufacturers Association will never acquire the reputation of always being 'against'."

"We should have the foresight," he said, "to support long-range projects which give promise of advancing medicine and health."

**PMA CHAIRMAN-ELECT: S. Barksdale Penick, jr., president of S. B. Penick & Co., New York, who has been named chairman-elect of the Pharmaceutical Manufacturers Association. Mr. Penick will automatically succeed to the PMA board chairmanship in 1962.**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# European Unity Seen A 'Must' Economically

A Swiss chemical executive called upon US drug producers to help heal the economic breach caused by the six-nation European Common Market and the seven-nation European Free Trade Association.

Dr. A. Wilhelm, vice-chairman of Ciba, Ltd., Basle, Switzerland, told the Pharmaceutical Manufacturers Association that Europe has lost much of its effectiveness in fulfilling its obligations because of the split.

He contended that this effectiveness will not be regained unless the US government makes it unmistakably clear that it wants a unified Europe. The drug industry can help to bring the American public around to this way of thinking, he said.

**Savings With Unification Cited**

"If European regionalism can be overcome," Dr. Wilhelm pointed out, "immediate savings will be possible on American duplication of investments in present production facilities in the two rival areas.

"Thus, the pharmaceutical industry will also have made a valuable contribution to the maintenance of the American payments balance while acting in its own interest.

"An alignment of policy equally important to our industry," the Swiss executive continued, "is the coordination of obligations devolving on the private industry in the less developed countries in the years ahead."

He felt that the US pharmaceutical industry, with its world-wide operating bases, is "particularly suited to pioneer in this field."

What Dr. Wilhelm particularly objects to is the "protectionist line" implied in the Rome Treaty, which set up the Common Market, particularly in its internal tariff.

If Switzerland were to follow suit, he said, "the duties on a very sizable volume of Swiss imports from the United States would be subject to increases ranging from two- to forty-fold."

Synthetic organic dye duties would be hiked twelve times; the polyvinyl resin tariff would be raised four times; phenol, twenty times, and antibiotics, twenty to forty times.

**Why the Distortion of US-Swiss Trade?**

"We see no reason whatsoever why the economic policy of the Common Market should lead to such an artificial and unnatural distortion of established trade patterns as they exist at present between Switzerland and the United States," he asserted, "and we fail to understand why this should be done to the benefit of the Rome Treaty countries."

In 1960, Dr. Wilhelm pointed out, US exports to Switzerland totaled around $250 million. On a per capita basis, Swiss purchases of US goods amounted to $50. This compares with US per capita purchases of Swiss goods of only $1.

Every Swiss individual, he emphasized, bought two and a half times as much US goods as did the individual German and four times as much as did every Frenchman.

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| Imitation Wild Cherry Flavor 2:1 | 2 ozs. |
| Imitation Chocolate Aroma Flavor | 2 ozs. |
| Cola Type Flavor 1:1 | ½ to 1 oz. |
| Cola Type Flavor 4:1 | 4 ozs. |
| Concentrated Lemon-Lime Flavor | ¼ to ½ oz. |
| Licorice Type Flavor 1:1 | ½ to 1 oz. |
| Syntharome Imitation Maplenut Flavor | ½ oz. |
| Syntharome Imitation Raspberry Flavor | ¼ to ½ oz. |
| Syntharome Imit. Tutti-Frutti Flavor | ¼ to ½ oz. |
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# Ethical Drug Future: Next Three Years Are Critical

—Continued from page 41

the smaller firms are hurt first and the most."

"This," he continued, "is why it seems so difficult for many to believe the critics in Washington who have been shedding crocodile tears for the small firm as they advocated measures that would eventually harm such a firm."

Noting that the organizers of PMA have spent "considerable time and money trying to build it into a strong organization," Dr. Smith declared that "now is the time to determine if it is strong enough to resist the tests to which it will be put."

"If not," he said, "then at best it can serve as a means for passive transmission of information or maybe some day as a recorder of or bargaining agent for prices permitted by the government for drugs."

Scientifically, he suggested, the drug industry "is doing well"—perhaps, it is too far ahead of its followers at times, he thought.

"Where support and strength is needed," he reported, "is in the legislative, public relations and socio-economic areas. This will involve discussions, even arguments, with men and women at all levels of community life. But these can be dignified, even though persistent, and not belligerent except where basic rights are at stake.

"This is where talks with friends in medicine, pharmacy and elsewhere can be helpful as the way is paved for understanding and cooperation, but all of us who participate must know what we are talking about.

**PMA Must Assume Leadership Role**

"In this respect, the PMA can and should assume a typical organizational role which is that of leadership. Otherwise, confusion and conflict will arise."

Turning to the congressional attacks on pharmaceutical industry profits, Dr. Smith had this to say:

"Karl Marx preached that capitalism could be destroyed by increasing taxes according to income and by taxing estates at time of death.

"Many others seem to be preaching the same thing, even in this country, and in addition are trying to limit what individuals and corporations should earn.

"Somehow the public has not generally appreciated that an attack on industry profits is really an attack on millions of people who receive dividends through stock ownership, on those who work for industry and on the communities that encourage industry growth.

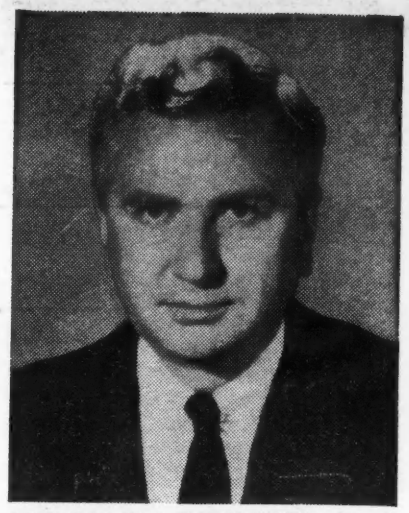
"Perhaps the public should also be made to understand that attacks on advertising, brand names and selling are attacks on its members who work in these areas. And other industries should appreciate that the attacks also are obliquely aimed at them and some day will affect them."

**'Profits Are Good for the Country'**

Dr. Smith declared that the drug industry has a right "to relate prices and profits," and, what's more, "it can prove that profits are good for the country and its people."

"It has a right to hold patents under our laws," he continued, "and should guard jealously this right as patents are good for all when wisely used.

"It can tell a good story on its investments in plants and equipment. It can defend trade names and their relationship to quality and peace of mind. And it can prove it has a corporate conscience."



**RE-ELECTED PMA VICE-PRESIDENT: John T. Connor, president of Merck & Co., Rahway, N.J., who has been re-elected a vice-president of the Pharmaceutical Manufacturers Association.**

# PR: What Do Pharmaceutical Makers Plan?

—Continued from page 41

in the American drug industry. These lists would be distributed to all the news media.

- A philanthropy survey designed to demonstrate the drug industry's non-product public service activities.
- A series of informational letters for detail men.
- The drafting of an industry platform. This would be a document stating the political and economic principles of the US pharmaceutical industry to advise the public where drug makers stand collectively.

And, of course, the PMA's public relations experts expect to lend a hand in preparing the testimony at the upcoming legislative hearings on the Kefauver-Celler drug control bill.

G. Frederick Roll of Smith, Kline & French Laboratories, Philadelphia, chairman of PMA's public relations section, offered some concrete ideas on how to blunt anti-industry propaganda, which, he said, will become worse. Mr. Roll told the association's member companies that they should:

- Recognize that they have a voice in the community.
- Participate in PMA's field advisory service.
- Get in on the association's speaker's program. Speeches do change opinions, he asserted.
- Refuse to allow press or radio distortions about the industry to stand without correction.
- Cooperate with the association by keeping PMA headquarters informed of all their informational activities.

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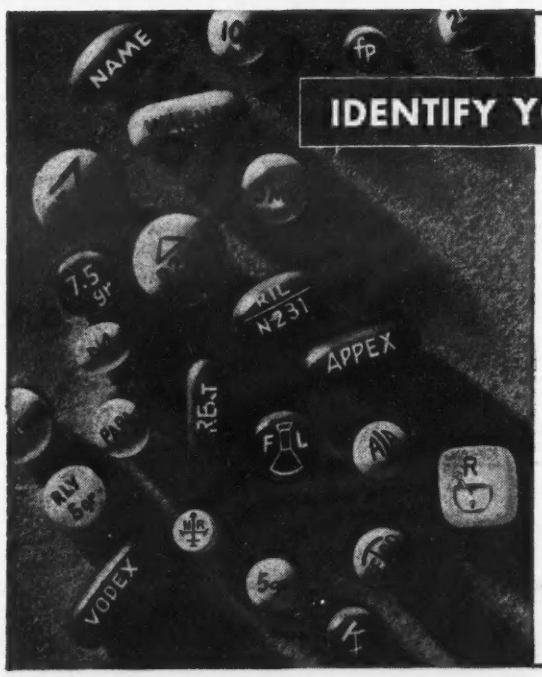


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**PMA Meeting Report**

# *Drug Men Told to Proclaim, Not Apologize for, Profits*

**RE-ELECTED PMA VICE-PRESIDENT: George R. Cain, president of Abbott Laboratories, North Chicago, Ill., who has been re-elected a vice-president of the Pharmaceutical Manufacturers Association.**

—*Continued from page 41*

American people, because they supply cures for disease.

"But, also, they pile up enormous economic savings as a result of prevention of illness."

What about the Kefauver attack on the drug industry? According to Dr. Robinson, the Tennessee senator's offensive was launched on two fronts: profits and competition. As the speaker analyzed it, this is how Mr. Kefauver views competitive conditions today in the drug industry:

There is no pure competition and the consumers have lost control. The price system no longer allocates its materials efficiently in terms of consumer wishes. Prices are too high. Profits are too big. The government must intervene.

This theory, Dr. Robinson maintained, has "many flaws." One such: It calls quality competition monopolistic, whereas competition is always two-sided involving price and quality.

**What If There's Drug Price-Fixing?**

"Now, if the Department of Justice and Kefauver produce any evidence of price-fixing in the drug industry," the speaker conceded, "we might as well be resigned to the fact that it will be an extremely devastating blow, for the economic justification of the industry's profits depend, and depend wholly, on the market test of competition."

Here's what Dr. Robinson had to say about the Kefauver attack on drug profits:

"The propaganda on drug profits was completely lacking in truth, but very, very clever. In the propaganda art, we think of it as a classic. I doubt if there ever has been an industry smear so perfectly conceived as this one, or so devastating in its results.

"The device was a simple one, which you know so well: to compare the wholesale and retail price with the cost of raw materials and then compute the mark-up.

"Now, this technic makes no economic sense whatsoever, because it does not allow for value added for manufacture, for research, nor medical education nor distribution.

**Mark-ups Produce Headlines**

"But it did produce some remarkable headlines, with mark-ups proclaimed in screaming black type of 1,000 to 10,000 percent all across the country, with these headlines being followed up by commentary from the radio and TV commentators."

What should drug management's response to this state of affairs be? Here's what Dr. Robinson told the pharmaceutical executives:

• "It is necessary to accept the fact that politics is a powerful factor in your affairs and will continue to be from here on. Dealing with it must be regarded as a way of life."

• PMA has set up its office in Washington to make contact with government and, what's more, has been preparing for congressional hearings, "using this form to defend" the pharmaceutical industry.

• The drug industry has recognized the need to speak directly to the public at large. In this connection, he said, "gear some of your material . . . to the intellectual."

• Don't be content with talking about the advance in medicine, but shape your material to the issues in the current debate. "The charge against you," he pointed out, "is profiteering." Answer the charge, Dr. Robinson said.

The speaker pointed out that speeches do change opinions. He reported on an opinion survey his group made in connection with the speaking program conducted by Smith, Kline & French Laboratories.

For each meeting, he reported, his researchers gave each person a questionnaire. One dealt with the drug industry; the other was a "placebo" that dealt with fall-out shelters.

After the SK&F speech, everybody in the audience got a drug questionnaire again. Thus, this gave the results of group No. 1 in its attitude before and after the talk and of group No. 2, with a blank before and an unstimulated response afterwards. Here are some of the questions and the results:

**The SK&F Opinion Poll**

Do drug products help us live longer? —66 percent before and 78 percent after.

Cost of prescription drugs is about right or low compared with cost of other things you buy—Yes, 17 percent before and 62 percent after.

Drugs are a bargain, considering everything you buy—Yes, 15 percent before and 42 percent after.

The drug industry is "highly competitive"—Yes, 38 percent before and 55 percent after.

Drug industry profits are reasonable—Yes, 30 percent before and 61 percent after.

**RE-ELECTED PMA VICE-PRESIDENT: Kenneth F. Valentine, president of Pitman-Moore Company, Indianapolis, Ind., a division of the Dow Chemical Company, who has been re-elected a vice-president of the Pharmaceutical Manufacturers Association.**

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**PMA Meeting Report**

# *Gov't-Industry War Must Be Halted*

—*Continued from page 41*

in the future and pay our stockholders a just return on their investment.

"In my opinion, anyone who thinks differently is opposed to the free enterprise system that made our country what it is today. Senators and representatives in state government and also national government must be sold on this concept."

To bring this about, he suggested to his fellow drug manufacturers, we must reach

Harry J. Loynd

the public with "true facts about our industry—true facts about our contributions to the health of this nation—true facts about our need for an adequate income."

However, he went on to say that the people in Washington are not solely to blame for industry's troubles. Businessmen themselves are "partly responsible" for the image they have created with the public, he contended.

"If we are to preserve the good name of our organization," Mr. Loynd asserted, "each one of us must preserve the good name of his company.

"We must agree that top executives are responsible for establishing strong, fair and ethical policies covering the action of all of our employees.

"The employees must be taught to feel that company policies mean exactly what they say. They must also understand that management will see that just punishment is applied in case they are guilty of any violations.

"In other words, it is the job of top executives to keep their own houses in order. This obligation cannot be delegated to anyone at a lower level.

"If your house is not in order," he warned, "clean it up now because, if you don't, some not too friendly group will do it for you."

This, he made it clear, does not mean "we should abandon competition and lay down and be quiet. In fact, each one of us must run twice as fast in the future as we have in the past to keep up with our competitors.

**Highest Standards Needed by Business**

"We must be free to compete, disagree, argue, criticize, but I must emphasize once again that there is only one way for our organization to survive and that is for top management of all of our companies to maintain the highest standards of integrity in all aspects of business operations.

"Be tough, but be fair and honest. Don't grab for the quick dollar; plan your business for the long pull."

In concluding, he pointed out that PMA has a big job ahead of it. The organization is "ready and able to tackle the job of counteracting the effects of political pills." But, he asked:

"Are we willing?

"Are we prepared for the exposure demanded for public approval?

"Have we the political skills and communications abilities to match those of our detractors?"


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## PMA Meeting Report

PMA TREASURER: L. D. Barney, president of Hoffmann-La Roche, Inc., Nutley, N. J., who has been elected treasurer of the Pharmaceutical Manufacturers Association.

# Legislative Challenges Greatest Since 1938

Legislative challenges confronting the pharmaceutical industry today "are more extensive and critical than at any time since the passage of the food, drug and cosmetics act of 1938."

That's the appraisal William B. Graham, president of Baxter Laboratories, Inc., Morton Grove, Ill., gave to the Pharmaceutical Manufacturers Association.

Mr. Graham, who is chairman of PMA's government-industry committee, pointed out that the '38 measure proved to be in the long-range public interest.

"It provided," he explained, "the public substantial safeguards on the one hand.

"On the other, it did not alter the competitive free enterprise character of our industry which has brought it such growth, and the public such benefits in new drug development, production and distribution."

In the current legislative hubbub, the challenge to drug makers is three-fold in Mr. Graham's opinion.

"We must seek out," he said, "potential legislation in which there is identity of the industry's interests with those of the public; we must work positively for such legislation.

"Where any potential legislation can be shown to be to long-range public benefit, even though it might require changes in our methods of operation, we must develop and make such changes.

"Where potential legislation would unreasonably restrict our industry without consequent benefit to the public, or even to the public's detriment, we must work with every means at our disposal to inform our legislative representatives and the public."

## PMA Elects 4 New Men To Its Board of Directors

Pharmaceutical Manufacturers Association elected four new men to its board of directors. Serving for three-year terms, the new PMA board members are:

H. Robert Marschalk of National Drug Company, division of Richardson-Merrell, Inc., Philadelphia.

William C. Conner of Alcon Laboratories, Inc., Fort Worth, Tex.

William N. Creasy of Burroughs Wellcome & Co. (USA), Inc., Tuckahoe, N. Y.

Philip B. Hofmann of Johnson & Johnson, New Brunswick, N. J.

Re-elected to the association board were these incumbent directors:

L. D. Barney of Hoffmann-La Roche, Inc., Nutley, N. J.

Francis C. Brown of Schering Corporation, Bloomfield, N. J.

William B. Graham of Baxter Laboratories, Inc., Morton Grove, Ill.

Dr. E. Gifford Upjohn of the Upjohn Company, Kalamazoo, Mich.


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**PMA Meeting Report**

# FDA Again Seems to Be Willing To Parley With the Drug Industry

**Although Food & Drug Administration and other units of the government are likely to continue to harass pharmaceutical makers with more and more regulations, there has been a "return to near normalcy at FDA" as regards that agency's willingness to talk things over with the industry. So John K. Worley, general counsel of the Pharmaceutical Manufacturers Association, reported to PMA.** Noting the "tremendous influx" of bills introduced in state legislatures this year to regulate the drug firms, Mr. Worley felt that it is not entirely due to the "fall-out" from the Kefauver investigation.

"It may also be largely due," he said, "to certain local state problems and to economic considerations of other members of the health team in the drug distribution system that have been forming for a number of years."

The PMA counsel was of the opinion that better communications among all members of the health team will produce less legislation during the next campaign.

**PMA's Position on State Legislation**

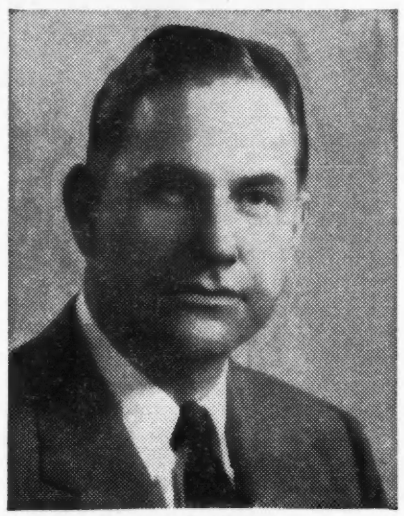
As for the association's position on state legislation, this is what Mr. Worley had to say:

"Our policy has been and probably will remain to seek a fair balance between maximum protection of consumers from harmful and unethical practices and the positive need to minimize needless governmental impediments to the legitimate production and distribution of the products of our member firms.

"There is no proper place for either bureaucratic or industrial self-interest without corresponding gain to the public, and we will continue to support those measures which will improve public health and oppose those that are purely regulatory as such, rather than for the public welfare."

Here are key passages from Mr. Worley's detailed report:

(1) PMA should vigorously and aggressively pursue its policies in respect of state legislation, including the engagement of local assistance where necessary or advisable—the expense of which should be spread generally across the membership by appropriations from general association funds.



John K. Worley

(2) We are opposed to:

(a) Licensing of pharmaceutical manufacturers.

(b) Licensing of pharmaceutical manufacturers who are domiciled in the state of license either by virtue of manufacturing or branch operation facilities.

(c) Licensing of pharmaceutical manufacturers even though a reciprocity provision is inserted excepting those firms from licensure if they are licensed in the state of domicile under a similar statute which has a similar reciprocity clause.

(d) Registration of all pharmaceutical manufacturers wherever located on the condition that registrants would thereby become subject to the jurisdiction of the state boards of pharmacy, and all of their rules and regulations.

(e) Licensing of detailmen.

(f) Discretionary licensing of products.

(g) Unrealistic regulation of sampling.

The reasons are obvious; two of the most prominent are that (I) these are onerous burdens on manufacturers without corresponding benefit to the public health; and (II) they form a dangerous precedent.

(3) Substitution, generic-name prescribing, welfare prescription bills should be left to the primary lead of the NPC. PMA should give them such assistance as may be required or advisable.

**What The Association Favors**

(4) We should approve and not object to:

(a) Enlargement of existing drug, pharmacy, barbiturate, narcotics, etc. laws to meet local problems and larger appropriations therefore. It is an oversimplification to be sure, but we have found that few of these organizations bother to familiarize themselves with the state laws they have, and their state administrative agencies frequently make only token efforts towards adequate enforcement.

(b) Legislation bringing the state laws into conformity with the federal.

(c) Registration of manufacturers in the several states of a simple listing or census-taking type—such as we have included in the bill we have drafted and submitted to the Governor in New Jersey.

(5) The PMA public relations program should encompass these principles and take on the task of educating our fellow members of the health team and the public to the wisdom thereof.

**Federal Legislation**—Most of our work in this area is yet to be done as the 87th Congress, to date, has hardly made an appreciable dent in the administration's initial legislative program.

**PMA ADMINISTRATIVE VICE-PRESIDENT: Dr. J. O'Neill Closs, who is administrative vice-president of the Pharmaceutical Manufacturers Association.**

In respect of proposed federal legislation directly related to the food, drug and cosmetic act, we have had several conferences with representatives of HEW and/or FDA. These were purely exploratory: No commitments were made by either side, but a comprehensive exchange of personal views resulted.

**What Will HEW Now Propose?**

We believe that HEW will propose the same amendments to the act as proposed by Secretary Flemming (S 3815-86th Congress) plus amendments to section 201 (definition of new drugs) and section 505 (new drugs) by the addition of the words "efficacy" and "efficacious."

As a result of discussions starting with an ad hoc committee through meetings of the full law section, government-industry committee, and the board of directors, the officers and staff of PMA are well briefed concerning the several points involved in this type of legislation; i.e., factory inspection, compulsory registration of all pharmaceutical manufacturers and mandatory inspection thereof, records of adverse drug reactions, enforcement of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## PMA Meeting Report

**PMA EXECUTIVE VICE-PRESIDENT: Dr. Karl Bambach, who is executive vice-president of the Pharmaceutical Manufacturers Association.**

minimum standards of manufacture and control, firm and product licensing, FDA control over the efficacy of new drugs.

**Kefauver-Celler Bill**—(S 1552 and HR 6245) These have been analyzed and reports thereof submitted to the membership by Mr. Kelly. Therefore, further details are not necessary here.

* * *

**Color Additive Legislation and Problems**—Numerous and extended conferences were held with senators, representatives and committee staff in an effort to have this legislation in more favorable terms. It was passed by the 86th Congress virtually in the same terms as presented to the house. Shortly after passage, we filed a petition to have all colors used by the pharmaceutical industry and listed on 7-12-60 given provisional listing under the statute.

As a result of our petition on behalf of PMA, the colors of greatest interest to our industry have been provisionally listed—some with tolerance levels—effective until January 12, 1963.

* * *

**Vitamin-Mineral Food Additive Problem**—As a result of our petition, practically all minerals used by our member firms in vitamin preparations were given GRAS status or maximum daily dosage tolerances, until March 5, 1961.

On behalf of member firms we have also filed section 409 petitions for permanent regulations in respect of all of the minerals used in vitamin combinations promoted as dietary supplements, which were given temporary status only until March 5, 1961 — except folic acid and menadione.

A petition has been filed by Lederle for folic acid and it will be supplemented on completion of clinical work now being done and supported by Lederle, Lilly, Abbott and Upjohn. Only one firm appears interested in menadione.

* * *

**New FDA Labeling Regulations**—An ad hoc committee of representatives on the law, medical and Pharmaceutical Contact sections, together with the government-industry committee and subcommitteee thereof, considered the proposed new labeling regulations of the Food & Drug Administration published in the *Federal Register* in July, 1960.

The brief on behalf of PMA which resulted from the several meetings of these committees was filed with FDA. On September 30 representatives of these sections and officers of the association had a conference with Commissioner Larrick and members of his staff concerning most of the proposed new provisions.

FDA published its final regulations in the December 9, 1960, *Federal Register* except for section 1.106(b)(3) (package insert provision). On further study, we found dozens of problems expensive to our member firms arising from application of these regulations.

We have had several extensive meetings with top people of FDA and it is pleasing to report that we have succeeded in changing some regulations, obtaining favorable interpretations and rulings, etc.


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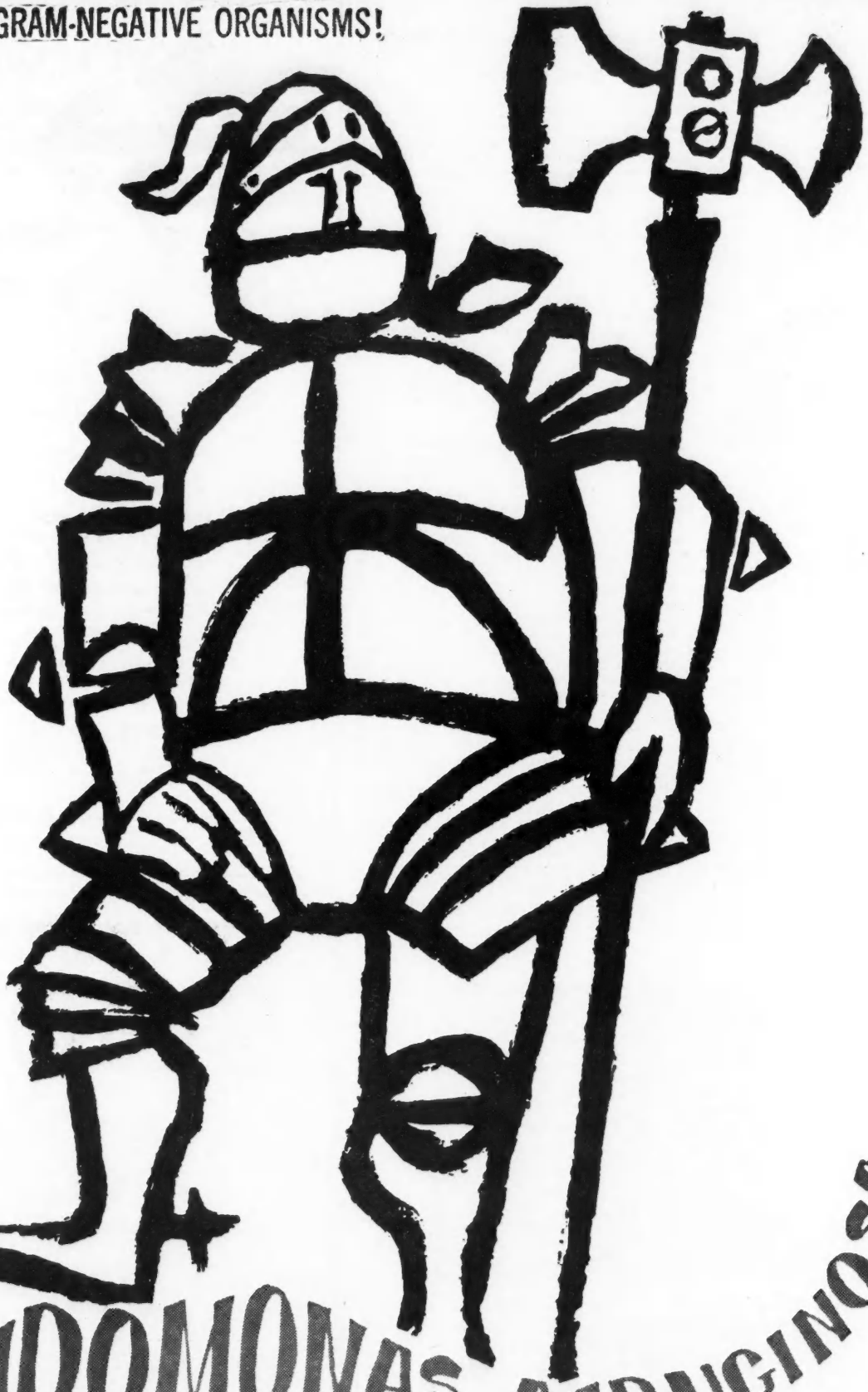

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# Drugs, Fine Chemicals

Sales of pyridoxine may eventually be given a boost by recently demonstrated effectiveness of the vitamin in reducing caries in adults—in much the same way that "Crest" toothpaste benefited from an endorsement by the American Dental Association. For harassed producers of $B_6$, this would be a welcomed development. Greater requirements would undoubtedly serve to stabilize prices which, despite today's low levels, are still distressingly weak. One of the factors involved, reportedly, is low-cost imports.

Like $B_6$, demand for thiamine hydrochloride and calcium pantothenate is relatively good though prices do not reflect this. In fact, cal pan is selling about 50 percent lower than the officially-listed $35 a kilo, according to usually well-informed sources.

Prices for butyl stearate were advanced May 1. The technical grade is now 1½ cents a pound higher, the CP grade, 1¼ cents. Spokesman for a major producer calls the increase a "delayed reaction" to several recent advances in stearic acid prices.

US Department of Agriculture reports that a new fermentation technique, developed by department scientists, more than triples beta-carotene yields. Also, that the beta-carotene contained in the solids obtained by the new process has an improved storage life and can be added to livestock and poultry feeds, especially, as a low-fiber source of vitamin A.

General Services Administration has turned down all four bids on the 1.1 million ounces of powdered quinine hydrochloride that it has attempted to unload repeatedly. The agency said that none of the tenders represented a fair return to the government; plans to issue new bid-invitations within a few days, open its return mail before the end of the month.

Bulletin from Britain: "Increased world demand for medicinal cod liver oil is forecast by world's largest producers in Britain following British experiments proving cod liver oil reduces blood cholesterol."

**Calcium Pantothenate** — Market is extremely competitive if prices are any indication. The official schedule lists the vitamin at $35 a kilo, but information from usually reliable trade sources indicates trading levels are as much as 50 percent lower. Feed grade material is also correspondingly cheaper than list prices would lead one to believe.

**Carotene**—Improvements in the processing of beta-carotene have been made through a new fermentation technique developed by US Department of Agriculture scientists. It more than triples beta-carotene yields, from the 1957 rate of 0.5 percent of total solids produced to 1.7 percent, USDA reports, and in addition provides longer storage life.

The technique involves using more efficient strains of a carotene-producing mold and adding a deodorized kerosene to the nutrient solution, or medium, on which the mold grows.

The newest beta-carotene medium contains acid-hydrolysed corn and soybean meal, thiamine hydrochloride, animal fat and vegetable oil, detergent, beta-ionone, and deodorized kerosene. The latter reportedly is primarily responsible for the yield increase.

Carotene occurs naturally as an orange-yellow pigment in plant and animal tissue. It is extracted from plant sources or synthesized chemically and added to poultry and livestock feeds as a source of pigment and vitamin A, required by all animals. Carotene is also used in pharmaceuticals and to color and enrich foods.

**Gelatin**—Going into April, gelatin producers held stocks totaling 14,592,000 pounds. This compared with 13,859,000 pounds thirty days earlier and 10,843,000 a year earlier. The slight rise was brought about by a decline in shipments in face of an increase in production.

March output was 5,361,000 pounds, up from 5 million in February but down from 5,601,000 in March 1960. Of the total, 4,566,000 pounds were manufactured from hides while the remainder (795,000) was ossein-derived.

Classified by type, production was, in thousands of pounds: edible 3,916; technical 259; pharmaceutical 285; photographic 901.

Shipments in March amounted to 4,628,000 pounds, only slighter higher than February's 4,516,000 and appreciably below March 1960 shipments of 5,981,000. By type, the total represented, in thousands of pounds: edible 3,250; technical [illegible]; pharmaceutical 337; photographic 850.

Stocks on April 1, totaling 14,592,000 pounds, broke down this way (in thousands of pounds): edible 8,336; technical 1,063; pharmaceutical 1,441; photographic 3,752.

### Price Trends

**Advanced**

Butyl stearate, CP, 1¼c. per lb. Tech., 1½c. per lb.

**Reduced**

None

**Comparative Price Indexes**

(100=1949 average)

| Last week | Prev. week | Last month | May 6, 1960 |
|---|---|---|---|
| 59.29 | 59.29 | 59.29 | 60.36 |

*For Current Prices see page 10*

**Pyridoxine**—Members of the American Society of Clinical Nutrition, meeting at Atlantic City, N. J., last week, were told that use of pyridoxine makes it possible to reduce dental caries in adults as well as in children.

Making the report was Dr. Robert W. Hillman and his associates at the State University of New York College of Medicine Downstate Medical Center.

To support their claim, the investigators cited tests in which 468 women, not more than four months pregnant when first seen, participated. These showed a 17 to 36 percent reduction in the incidence of new cavities with a 20 mg. daily dose of $B_6$, when the patients teeth were examined six weeks after delivery, as compared with those in the group which received no supplementary pyridoxine.

It was found previously that pyridoxine could prevent dental caries in school children and in laboratory animals.

Precisely how pyridoxine acts to prevent decay is not certain. It is known that the type of bacteria in the mouth which produce lactic acid (thought to cause decay) do not need vitamin $B_6$. In laboratory tests it has been shown that adding the vitamin spurs the growth of harmless bacteria at the expense of the decay-causing microbes.

**Streptomycin**—Market for streptomycin has firmed up appreciably and major suppliers now report trading at $30 a kilo, $2 higher than the mid-March level.

Stabilizing influence apparently was the greater winter requirement to which was added demand that might have gone to DHS last season.

But as strep gains, DHS loses out. February production of the latter was about 10 million grams, more than 50 percent lower than output the preceding month. The sharp cut may not be a trend-setter, but rather a move to get inventories in line with today's sales. Excess supply was thought to account for the existence of a shaky price structure some weeks back.

## Botanicals

Price stability prevails in markets for practically all imported and domestic botanicals. The latter, of course, are available in only limited quantities but, in anticipation of adequate offerings of this season's crops, some dealers are reportedly selling short.

Water-soluble gums are in good demand with firmness particularly characteristic of arabic and karaya.

**Ergot**—Quote remains relatively high at $2 to $2.50 a pound, the range established early this year. Stocks are small.

**Irish Moss**—Higher replacement costs have driven up the price to 30c. to 32c. a pound.

**Orange Peel**—Demand is fairly active for this rather large volume botanical. Unchanged, prices range from 18c. to 20c. a pound on the bitter peel to 28c. to 30c. a pound on the sweet. Dealers' stocks are believed adequate to fill anticipated requirements.

**Quince Seed**—Domestic market for quince seed has been among the most active since the beginning of the year. A price advance amounting to 25c. a pound in mid-February reflected the strong sit-


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# Drugs, Fine Chemicals

uation. Today's quote is unchanged at the $1.75 to $2 level posted at that time, and any immediate weakening is not likely.

## Drug, Fine Chemical Briefs

**CONVENIENT PACKAGING:** "Merthiolate" is now available in two new dispensers—a six-ounce aerosol and a 3¼-ounce plastic squeeze bottle. Greater convenience and economy in application are afforded by the new packaging, according to Eli Lilly & Co., Indianapolis, Ind., manufacturer of the non-toxic antiseptic.

**LEMKE EXPANDING:** B. L. Lemke & Co., one of two US producers of procaine hydrochloride, expects to add fifteen new products to its current line of fifty fine chemicals, with the completion of new manufacturing facilities in early 1962. The Lodi, N. J., firm reports a 5 percent sales increase for the fiscal year ended March 31 and anticipates a 20 percent gain in the current year.

## *Business Upturn Gaining*

*—Continued from page 3*

wary eye on Washington and the turmoil in the world situation.

**Commodity Prices**

For the past several months, a gradual price stabilization with slight upward tendencies has been detected. This situation continues apparent in the April figures. Of the total members reporting, 14 percent went on record as generally paying higher prices for their purchases, up only 1 percent from last month; while 7 percent down from 10 percent in March, said that prices were lower.

The majority of respondents, 79 percent, reported prices to be the same. This is up a modest 2 percent from March. Many executives comment that excess productive capacity is keeping the market intensely competitive. Resistance to price hikes is strong as purchasing management seeks cost reduction to counter anemic profit margins.

**Purchased Materials Inventories**

Purchasing executives persist in holding a tight "hammer lock" on inventories. In spite of the improvement in business, noted above, further reductions are reported this month, but again at a slower rate than last month: 18 percent have added to inventory, up from 16 percent; and, 27 percent lower figures, down from 30 percent last month. Inventory consciousness is very apparent in this month's remarks.

**Employment**

Employment is up. For the first time since February, 1960, the number reporting more employees exceeds the number reporting less: 29 percent show improvement in employment, up from only 12 percent in March and 6 percent in February—which was the low point of the last three years. Only 17 percent report further reduction, down from 30 percent in March and 42 percent in February. The 29 percent showing improvement is the largest number so reporting since July, 1959. This traditional lag indicator seems to have behaved as expected and is following the up turn noted earlier in other indicators.

**Buying Policy**

Reports of committee members indicate no significant change during the past month in buying policy as measured by the extent of forward commitments. Since January, a very moderate lengthening has been noted and, in general during April, there has been neither an advance nor a retreat from the March position.

The March figures showed 16 percent of those reporting to be extended for ninety days or longer on production materials. In April, the figure is 17 percent. A few buyers did, however, migrate from the 30-day to the 60-day bracket. The MRO and capital expenditures categories exhibit an equally static situation when compared to March.

Here again, we see reflected considerable confidence in the continuance of prompt deliveries with no serious shortages over the near term, as well as strong determination to hold the line on inventories.

| | *Percent Reporting* | | | | |
|---|---|---|---|---|---|
| *April* | *Hand to Mouth* | *30 Days* | *60 Days* | *90 Days* | *6 Mos. to 1 Yr.* |
| Production Materials | 8 | 35 | 40 | 14 | 3 |
| MRO Supplies..... | 32 | 41 | 22 | 4 | 1 |
| Capital Expenditures | 15 | 6 | 14 | 20 | 45 |
| *March* | | | | | |
| Production Materials | 9 | 41 | 34 | 12 | 4 |
| MRO Supplies..... | 31 | 42 | 21 | 5 | 1 |
| Capital Expenditures | 17 | 7 | 10 | 21 | 45 |

**Specific Commodity Changes**

Numerous price changes are reported by committee members this month, although the list of commodities receiving consistent mention is not large.

Very little reference is made to shortages, either local or national, except in the case of the phthalic group, which has been reported in short supply for most of the past year.

On the up side are: tin, soybeans and soybean products, fatty acids, oil field casing and lamps.

On the down side are: paper products, fuels, conduit, and phenol.

In short supply are: phthalic anhydride and esters.

# Obituaries

### Ralph Hall, Sr.

Ralph Hall, sr., research scientist best known for his development of "Calgon," a water conditioner, died May 2 in Rehoboth Beach, Del. He was seventy-six years old.

A recipient of the Pittsburgh Award of the American Chemical Society, Dr. Hall had served on the staffs of the Mellon Institute and the Bureau of Mines.

At his retirement in 1950, he was with the Hagan Corporation in Pittsburgh, where he directed the Hall Laboratories, which had been named in his honor.

### Frank G. Moore

Frank G. Moore, who retired this February as general traffic manager of Columbia-Southern Chemical Corporation, a division of Pittsburgh Plate Glass Company, died April 29 in Pittsburgh. He was sixty-five years old. Mr. Moore had twenty-six years of service with Columbia-Southern.

**Henry Rowan**, retired sales manager for Atkins & Durbrow, New York fertilizer manufacturers, died May 1 in Elberon, N. J. He was seventy-three years old.

## *Herbicide Facility*

*—Continued from page 5*

demand in non-crop weed and brush control programs for railroads, industrial sites, farm and industrial storage areas, electrical installations, highways, parking lots, and other non-landscaped areas, an Allied spokesman says.

The plant was designed by General Chemical's Camden, N. J., engineering department. Fully-developed processes are said to guarantee high-purity standards and add production flexibility for the specialized liquid and solid forms of "Urox" and "Urab."


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**IN NEW POST: William A. Hanley, jr., named managing director of Eli Lilly (Australia) Pty., Ltd., succeeding Glen E. McKague, who has resigned.**

## Dihydrostreptomycin Drugs Given New Labeling Standard

New labeling requirements to assure the safe use of dihydrostreptomycin drugs and dihydrostreptomycin-streptomycin mixtures for human parenteral injection (subcutaneous, intramuscular, etc.) have been put into effect by Food & Drug Administration.

The requirements were first proposed in the *Federal Register* of September 27, 1960.

The amendments follow discovery "that auditory impairment of total deafness can result from use of a much smaller amount of dihydrostreptomycin or its use for a much shorter period than was formerly believed required to produce the injury," the agency notes

Prior to this knowledge, labeling for the dihydrostreptomycin was required to bear the information that frequent auditory and caloric tests should be performed on all patients receiving it on a long-term basis.

Under the new requirements, outside wrappers or containers and the immediate containers of dihydrostreptomcin must bear the statement: "Warning: For use only in patients who cannot tolerate streptomycin."

In the case of the dihydrostreptomycin-streptomycin mixtures the statement must read: "Warning: For use only in the treatment of tuberculosis in patients who cannot tolerate full dose of streptomycin."


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## Herstein Laboratories Sold; Former Owner Is Retiring

Herstein Laboratories, Inc., New York, has been sold to Dr. Oleg K. Kononenko, the company's director of research. Karl M. Herstein, former president and owner, is retiring after more than forty years in the chemical business.

Herstein Laboratories was established in 1935 to conduct chemical research and development for diverse industrial clients.

During the last eight years, the company has participated in the evaluation and screening of chemical derivatives of sugar for the Sugar Research Foundation as well as serving other clients in the chemical, oil, tobacco and food fields.

## FDA Okays Chemical For Self-Rising Flour

Food & Drug Administration has approved an amendment to the definition and standards of identify for self-rising flour and enriched self-rising flour to include sodium aluminum phosphate as an additional acid-reacting optional ingredient.

The amendment was approved on a petition and data supplied by Victor Chemical Works, a division of Stauffer Chemical Company, Chicago.

## *Coal Chemicals*

*—Continued from page 35*

tigal houses remain the most active feature of the b-naphthol market.

Dyestuff manufacturers are also reported buying in good volume.

Anti-oxidant application is down as the result of generally poor rubber production. Movement of b-naphthol into this end-use, though important, has never been an influencing factor on the market as a whole, however.

Price is unchanged at 34c. a pound for technical grade material, flaked, in barrels, carlot amounts, works, and 2c. a pound more for less than carlot quantities.

**Phthalic Anhydride**—Supply situation continues to improve.

Not yet in balance, phthalic displays evidence of rapidly approaching a favorable supply/demand. posture.

One major phthalic producer cites the fact that small-volume consumers are beginning to defer their allotments. This action could spring of course from the usual consumer practice of duplicating orders for scare material; but trade sources believe instead that deferments reflect buildup of inventory by small consumers.

Best estimate now is that balance will be achieved by mid-year.

Some producers continue to run ortho although naphthalene supply is also rapidly improving.

**Tobias Acid**—A major producer has revised his schedule for this material.

New basis is: Truckload or carload, minimum 20,000 lbs., 81c. a lb. in drums, 5,000 through 19,999 lbs., 81½c. a pound and for less than 5,000 lbs., 84c. a pound.

Prices are f.o.b., plant or warehouse, full freight allowed to destination east of the Rockies. West Coast delivery prices are 2c. a pound higher across the board.

## *Science on the Campus*

*—Continued from page 5*

administered either by universities or private organizations.

"Through the whole decade of the fifties," he said, "only seven cents of every federal research dollar went into basic research for the purpose of increasing the store of existing knowledge."

Dr. Tishler is the sixteen recipient of the Industrial Research Institute medal awarded annually for "outstanding accomplishment in leadership in or management of industrial research."

Head of Merck's $21-million-a-year research program, he was cited for "dynamic leadership in industrial research and development."

The institute, founded under the auspices of the National Research Council, has a membership of 350 research executives representing 175 leading US companies whose industrial research staffs total more than 150,000 people.

## *Carbide and Swedish Firm*

*—Continued from page 3*

cludes Scandanavia generally as well as Sweden. Requirements of the latter are expected to be covered fully.

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# Essential Oils. Aromatics

A few minor price changes were reported by essential oil dealers last week. Messina lemon advanced 75 cents per pound, Mexican lignaloe wood advanced 15 cents per pound, imported pennyroyal advanced 40 cents per pound and technical Spanish rosemary advanced 30 cents per pound. Cardamom dropped $1 per pound. Clove bud, ginger and pennyroyal were said to be firm. Vanilla beans were reported to be steady and unchanged, as are both black and white pepper. No further advances were reported in the various types of bay oil.

Flavor was in focus in the food section at the US World Trade Fair at New York's Coliseum which is open through Saturday (May 13). Many products boast new and unusual flavoring agents and almost as many boast there is no flavor added.

One booth, selling hickory-smoked beef sticks, is decorated with large signs saying that the sticks contain no garlic, no spice, no pepper and no pork.

A soap from Holland, all but guaranteed to ensnare a husband, is made—not with the usual sweet-smelling oils but with buttermilk.

Edible milk products, cheese for instance, is both flavored and unflavored. One striking display contains three large pieces. The two outside ones are shaped like bells some two feet high and three feet in circumference. The inside piece, which weighs 450 pounds, is considerably taller than your author who stands five feet four inches.

Enough Provolone cheese to last a lifetime, this piece was made in Italy from 3,000 quarts of milk.

Among the other dairy products, there are 28-pound cans of liquid frozen whole eggs from Poland. Also from Poland are samples of whole frozen feathered partridges which are certainly nothing new. Petronius described a banquet in ancient Rome at which one of the most spectacular dishes was a pheasant cooked in all its feathers that looked so natural the guests expected him to fly away at any moment. The Poles, though, have made it possible for the ordinary housewife to serve such a delicacy.

Other unflavored items were the cigars and most of the coffee. There was not much space alloted to tea but one Belgian candy booth specialized in sour lemon drops which were designed to flavor tea. "Drop one in your cup of boiling tea and see," is the slogan.

Novel candy flavors are honey blossom from Israel, gooseberry from Finland, ginger from England, toronne from Italy, pistachio, banana, clove and blackberry.

### Price Trends

**Advanced**
Lemon, Messina, 75c. per lb.
Lignaloe wood, Mexican, 15c. per lb.
Pennyroyal, imported, 40c. per lb.
Rosemary, Spanish, technical, 30c. per lb.
**Reduced**
Cardamom, $1 per lb.

**Comparative Price Indexes**
(100—1949 average)

| Last week | Prev. week | Last month | May 6, 1960 |
|---|---|---|---|
| 143.80 | 143.78* | 143.75 | 145.45 |

* Revised.

*For Current Prices see Page 10*

## Essential Oils

**Cardamom**—Dealers report the NF material is now selling for $40 per pound. It had been previously listed at $41 per pound.

**Clove Bud**—There is some feeling that this market may be firming. The spot price, however, has not gone up.

**Ginger**—Some dealers report a strong market. The low of the OPD range remains at $12 per pound, but reports have come in of sales being made as high as $14 per pound.

**Lemon**—Messina material is said to be quite strong. The OPD price has advanced from $3.25 per pound to $4 per pound.

Some dealers report, however, that they are getting $6.50 per pound for their material.

**Lignaloe**—The wood from Mexico is firm. From the previous $2.60 per pound, it has advanced to $2.75 per pound, with some dealers asking upwards of $3.50 per pound for their material.

**Pennyroyal**—Imported material is firming. From its previous quotation, $1.95 per pound, it has advanced to $2.35 per pound. Prices as high as $2.80 per pound are being quoted.

**Rosemary**—Dealers report the market is firm. Some quantities of material are available for 90c. per pound but prices of up to $1.20 are heard about the trade.

The technical grade is selling for approximately 80 cents per pound.

## Aromatic Chemicals

**Coumarin**—The listing for coumarin will henceforth be for 200-pound drums. Material packed in these containers is now available at $3.20 per pound.

Material packed in 25-pound drums is available at $3.30 per pound.

It is reported that limited quantities of material are available at $3 per pound.

## Seeds and Spices

**Allspice**—Jamaican material dropped from the previous price, 72c. per pound, to 70c. per pound.

**Ginger**—Material from Cochin advanced in price. From its previous 18c. per pound, it advanced to 20c. per pound.

**Pepper**—Neither the black or white pepper showed any appreciable change in price. Both Malabar and Lampong black remained at the previously quoted 47c. per pound.

Muntok white dropped from 56c. per pound to 55½c. per pound.

## Essential Oils Briefs

**D&O ADDS TO SALES FORCE:** Dodge & Olcott, Inc., has announced the addition of two men to their national sales force.

*—Continued on page 56*

### Essential Oils Imports*

| | Principal Origin | Net Quantity Pounds | Value |
|---|---|---|---|
| Geranium | France | 17,648 | 324,372 |
| Bergamot | Italy | 3,905 | 42,559 |
| Citronella | Taiwan | 202,000 | 179,666 |
| Lemongrass | India | 137,690 | 239,515 |
| Lavender | France | 117,698 | 124,284 |
| Spike Lavender | Spain | 10,362 | 17,725 |
| Lemon | Italy | 8,617 | 37,680 |
| Orange | — | 9,265 | 12,536 |
| Sandalwood | India | 2,200 | 36,656 |
| Lime | Mexico | 49,019 | 210,143 |
| Almond, Bitter | — | 1,452 | 1,614 |
| Camphor | — | 32,509 | 4,597 |
| Caraway | Netherlands | 3,534 | 15,531 |
| Cananga | — | 2,001 | 24,579 |
| Lignaloe | Peru | 11,978 | 18,085 |
| Palmarosa | — | 503 | 2,443 |
| Petitgrain | Paraguay | 23,279 | 50,269 |
| Rosemary | — | 9,813 | 9,184 |
| Thyme | — | 2,205 | 5,717 |
| Clove | — | 4,800 | 9,067 |
| Eucalyptus | — | 6,610 | 2,289 |
| Ocotea Cymbarum | — | 11,981 | 3,958 |
| Vetivert | Haiti | 3,200 | 42,113 |

* January.
Source: Bureau of Census.

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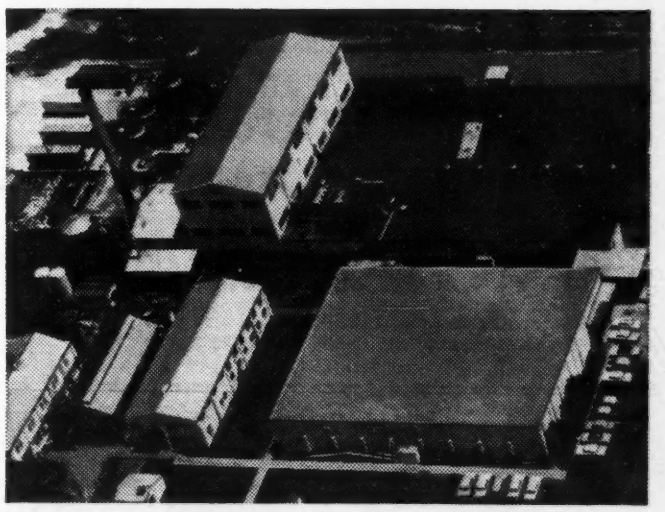
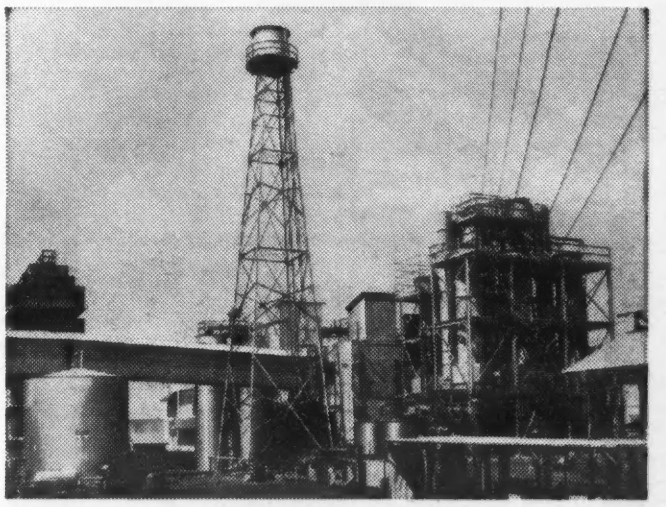


**Florida SUN-FILLED citrus oils** are produced at 3 Minute Maid plants — Plymouth (shown above), Auburndale and Leesburg, Florida.



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## Essential Oils

—*Continued from page 54*

**T. Fred Baker, who was formerly president of the Boston Drug & Chemical Club, will operate D&O's St. Louis branch. Robert Bjorn, who was previously an engineer in Chicago, will work in the Illinois, Indiana and Michigan territory.**

**FRAGRANCE FOUNDATION TO MEET:** The Fragrance Foundation will have a dinner-dance Wednesday (May 10) at the Waldorf-Astoria in connection with the Toilet Goods Association convention which runs from Tuesday through Thursday (May 9 through May 11). Details are available at the foundation's office, 10 East 60th Street, New York.

### Rutgers Drug Meeting: 'Challenges of the '60's'

George Bugbee, president of Health Information Foundation, New York, will highlight the tenth annual Rutgers Pharmaceutical Conference at the State University in New Brunswick, N.J., Wednesday (May 10) with a talk on "The Increasing Demand for Medical Care." Over 500 representatives of all phases of the pharmaceutical profession and industry are expected to attend the all-day session.

Five speakers will discuss the conference theme "A Decade of Pharmaceutical Progress and the Challenges of the '60's" in the morning.

Francis L. Capers, McKesson & Robbins, Inc., New York, will examine "Distribution, Everybody's Responsibility." Ralph M. Ware, jr., 1960-61 president of the National Association of Boards of Pharmacy, is to forecast "Pharmaceutical Legislation in the Future."

Also, Alvin N. Geser, New Jersey Pharmaceutical Association, Trenton, will detail "Interdependence of Pharmaceutical Organization" and Lee H. Bristol, jr., Bristol Myers Products Division of Bristol Myers Company, New York, will describe "Our Public Relations Opportunity."

### FTC's Dixon to Address Proprietary Association

Federal Trade Commission's chairman, Paul Rand Dixon, will address members of the proprietary drug industry May 15, highlighting the annual meeting of the Proprietary Association, May 14-17, at the Greenbrier hotel, White Sulphur Springs, W. Va.

Other speakers at the event will be William Hesse, newly-elected president of Benton & Bowles Advertising agency, New York; world traveler Dr. John H. Furbay, New York; and Louis Kazin, editor of *Drug Topics* and *Drug Trade News*.

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# Coating Materials

Metal derived pigments continued to spark pricing activity in the market for week. Copper oxide is the latest to be added to the advance column, following recent increases on antimony oxide and cadmium pigments. The one cent per pound increase on copper oxide reflects the recent boost on copper metal which is reported to be under heavy demand from many industrial sources. Antimony oxide price schedules remain split, but most of the trade is reported to be going business at 30 cents per pound. An earlier report that the trade had returned to the 26½ cent level was emphatically denied by one leading producer last week. Business is being done at 30 cents per pound, he reports, and he adds, that no decrease in sales has been noted since the advance went into effect.

Another of the metal pigments, cadmium, will be boosted 3 cents to 7 cents a pound on May 15, several producers have announced. That increase also follows a similar increase on its related metal.

Casein market moved higher during the week in a dramatic reversal of recent trends. After being quoted as low as 14¼ cents, casein prices bounced back to somewhere closer to normal prices as Argentine hit 17¾ cents to 18 cents a pound.

Some offers of 18½ cents were reported for the week, but the majority of business was being done in the 17¾ cent range for Argentine shipments. French casein was offered on a limited basis, some quarters asking 16½ cents.

Shellac producers report business about normal, although the brisk level of business that comes with spring. Prices are reported unchanged, shipments ample. Other natural gum markets are reported to be quiet, prices steady, arrivals prompt.

Plasticizer producers are set for a good month as advance orders and easing of supplies point to a near-perfect market picture. Producers anticipate sustained demand from wire coating outlets, general improvement in other areas, with a slight weakening from tile manufacturing outlets.

### Price Trends

**Advanced**

Casein, Argentine, ½c. per lb.
Copper oxide, 1c. per lb.

**Reduced**

None

**Comparative Price Indexes**

(100—1949 average)

| Last week | Prev. week | Last month | May 6, 1960 |
|---|---|---|---|
| 104.58 | 104.57 | 104.55 | 103.14 |

*For Current Prices see Page 10*

## Prime Pigments

**Antimony Oxide**—While a split schedule on the oxide still exists between producers of antimony oxide, earlier reports that the market was quietly adopting the older and lower price was labeled as completely unfounded last week by one leading producer.

His sales of oxide are reported to be in no way harmed by the 3½c. increase that went into effect about a month ago. Sales of the oxide continues at about the same level as before the advance.

According to his sources, sales of the oxide in the trade are being made at their announced prices. Those producers who raised their listings for the oxide are doing business at that level; none have backed off the increase, he reports. Nevertheless, one producer continues to quote the oxide at the old price.

**Carbon Black** — Production of carbon black in March was 8.6 percent lower than March 1960, according to the Bureau of Mines. Shipments decreased 8.4 percent from March a year ago, while stocks were decreased 1 million pounds.

Production in March was reported at 167.491 million pounds, bringing the total for the year to 480.839 million pounds as compared to 533.315 million pounds for the first three months of 1960.

Shipments made in March brought the total for the year to 470.962 million pounds or 62 million pounds less than the level reached last year at this time.

Exports on carbon black were also reported reduced. For the first two months of the year, outshipments of carbon black were off 18 million pounds, totaling 80.166 million as against 98.117 million pounds for the months Jan.-Feb. of 1960, reports the Bureau of Mines.

**Cadmium Pigments**—With the 3c. to 7c. price increase on the cadmium lithopones and concentrated types coming up May 15, consumers are reported to be stocking pre-price increase material. This has added to the normal rate of shipments but is expected to drop off when the new prices go into effect.

Trade sources report that the demand for the cadmium pigments is running about normal for this time of the year and see no real change taking place in the market over the next few months.

**Copper Oxide** — Following the recent firming of listings on copper metal, copper oxide prices went up 1c. per pound on Navy type I and regular black copper oxide. For shipments of 100 to 5,000 pounds, black copper oxide is newly quoted at 47c.; red, 97 percent, Navy, type I, 47½c.; and 90 percent Navy type II 45½c.

**Titanium Dioxide**—Some improvement is noted in regard to demand from the paint industry, but paper production still accounts for the largest chunk of titanium business. Listings and supply situation remain unchanged.

## Synthetic Resins

The following preliminary figures show production in pounds for February, 1961 with the previous month supplied for comparison, as reported by the Tariff Commission:

**Production**

| | January | February |
|---|---|---|
| Phenolic and other tar acid resins: | | |
| Molding resins | 15,736,315 | 15,270,962 |
| Laminating resins | 4,879,152 | 5,413,017 |
| Protective coating resins, modified, unmodified, except by rosin | 1,665,289 | 1,341,449 |
| Urea and melamine resins: | | |
| Protective coating resins, straight modified | 2,580,735 | 2,452,985 |
| Styrene resins: | | |
| Protective coating resins, straight modified | 6,542,528 | 5,273,707 |
| Vinyl resins: total all types | 87,690,532 | 81,148,835 |
| Alkyd resins for protective coatings: | | |
| Phthalic anhydride types, unmodified | 16,149,911 | 15,964,594 |
| Modified with tar acids, rosin and/or other material except styrene | 5,946,166 | 5,447,256 |
| Polybasic acid types except phthalic: | | |
| Unmodified | 597,236 | 603,821 |
| Modified with tar acids, rosin and/or other material except styrene | 619,238 | 450,327 |
| Rosin modification for protective coatings: | | |
| Rosin, rosin esters, unmodified (ester gums, esterified with glycerol) | 616,611 | 520,160 |
| Esterified with other alcohols, pentaerythritol, glycols, etc. | 636,443 | 534,559 |
| Modifications with phenolic and other tar acid resins: | 2,023,085 | 1,745,737 |
| Modifications with maleic and fumaric acids | 2,226,422 | 2,140,642 |
| All other modifications | 3,805,272 | 3,859,640 |
| Coumarone-indene and petroleum polymer resins | 14,808,990 | 15,299,184 |
| Miscellaneous plastics and resin materials | 21,360,903 | 20,720,180 |

## Lacquer Materials

**Nitrocellulose**—Prices are to go up 2c. per pound across the board on June 1, according to one leading producer. Increased costs in production over the past three years are cited as the reason for the increase.

**Plasticizers**—After a fairly dismal sales performance in April, plasticizer producers are looking forward to increased sales in May. Advance orders indicate that the prospects for the month, particularly wire coating end-use, will be favorable. Supplies of the esters are easing. The dovetailing of supplies and demand should bring the market into rare balance, sources report.

## Miscellaneous

**Casein**—Argentine casein moved upward to a range of 17¾c. to 18c. a pound, with some quotations of one-half cent higher heard in the trade. While not freely offered, French casein gained some ground, closing at 16½ cents a pound.

One trade source, commenting on the dramatic shift in the casein market, felt

*—Continued on page 64*


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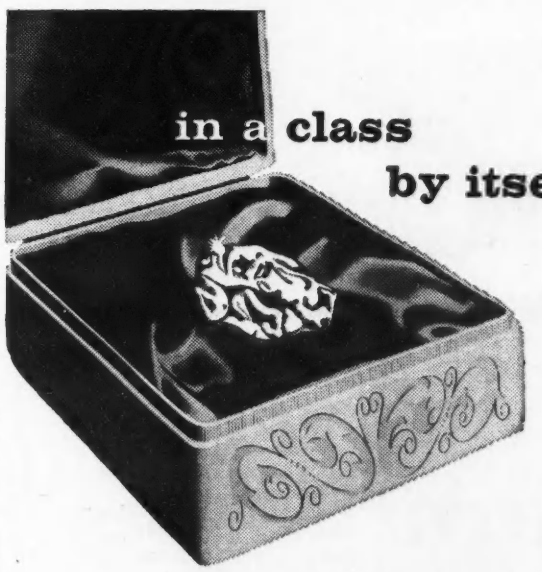

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# Oils, Fats and Waxes

**Trading in oils and fats continued spotty, chiefly for prompt requirements last week. Soybean and cottonseed oils were declining fractionally with lower beans, while corn remained steady. Peanut oil was unsettled and sold at ¼ cent less. Crude coconut oil was irregular but sold at unchanged quotations. Steady tone prevailed in tallow and greases. Trading was reported fair, offerings light and generally quoted ⅛ cent higher. Export interest was more active. Lard was steadier and cash lard slightly higher.**

Among industrial oils, tung oil was easier and imported oil declined ½ cent per pound, reflecting lower sales of government owned oil and slow business. Brazilian castor oil continued firm at the recent advance. Replacements from Brazil were scarce and higher. Linseed, oiticica and menhaden oils were in good demand against former orders, while new business was quiet.

## Price Trends

**Advanced**

Cocoa butter, ½c. per lb.
Lard, cash, ½c. per lb.
Tall oil, refd., 1c. per lb.

**Reduced**

Cottonseed oil, crude, ¼c. per lb.
Refd., ¼c. per lb.
Peanut oil, crude, ½c. per lb.
Refd., ½c. per lb.
Soybean meal, $3 per ton.
Soybean oil, crude, ½c. per lb.
Refd., ½c. per lb.
Tung oil, ½c. per lb.

**Comparative Price Indexes**

(100=1949 average)

| Last week | Prev. week | Last month | May 6, 1960 |
|---|---|---|---|
| 113.51 | 114.14 | 108.37 | 112.81 |

*For Current Prices see Page 10*

## Vegetable Oils

**Castor**—Firm tone prevailed in Brazilian oil. No. 1 was held at 17¾c. per pound, tankcars, New York, prompt delivery. Refined was in moderate demand and steady.

Imports of castor beans and castor oil at New York and Philadelphia last week were as follows:

| | Pounds | |
|---|---|---|
| | Castor Beans | Castor Oil |
| Last week | ..... | 1,100.000 |
| Previous week | ..... | 4.024.000 |
| Corresponding week, 1960 | ..... | 2.126.000 |
| Total this year | ..... | 28,582.000 |
| Corresponding period, 1960 | 1.934.700 | 32.810.000 |

**Coconut**—Crude was steady and closed unchanged. Prompt shipments were sold at 11¾c. per pound, tankcars, f.o.b. Pacific coast and to 13c., f.o.b. New York, prompt delivery.

**Corn**—Offers were scarce. Crude was sold at 17¾c. per pound, tankcars, f.o.b. mills, prompt shipment. Refined oil was held at 21.48, tankcars, New York basis.

**Cottonseed**—Futures were irregular on the New York Produce Exchange last week, reflecting wide price fluctuations in soybeans. Trading was active and quotations closed fractionally lower. Export business improved. Mexico purchased 7,000 tons of cottonseed oil for May shipment and is seeking 3,000 tons more. Cash oils were inactive and easy. Refined salad was quoted at 18c. per pound, tankcars, New York, prompt delivery.

Crude cottonseed oil was lower, off ¼c. Tankcars were nominal at 14½c. to 14⅝c. southeast and 14¼c., Valley and Waco.

### Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, May 5, follow:

| | Sales | High | Low | Close |
|---|---|---|---|---|
| | | Cents per Pound | | |
| May | 397 | 16.71 | 16.06 | 16.11S |
| July | 1,417 | 16.50 | 15.88 | 15.94S |
| Sept. | 153 | 15.63 | 15.07 | 15.13@15.18 |
| Oct. | 124 | 14.82 | 14.47 | 14.59S |
| Dec. | 53 | 14.70 | 14.33 | 14.40@14.46 |

Total sales and switches, 2,144 contracts.

**Linseed**—Consumers continued to absorb sizable quantities against contracts, while new business was confined to fill-in needs. Raw oil was unchanged at 13.1c. per pound, tankcars, Minneapolis, May-July delivery; 13.3c., August-September and 14.22c., f.o.b. New York, prompt delivery.

**Olive**—Replacements remained firm, with foreign buyers absorbing moderate quantities, while interest from US importers was slow. Spanish oil was firm at $53 to $54 per 100 kilos, drums, f.o.b. ports, prompt shipment and Tunisian, $56.50, c. and f. New York. Demand for oil on spot was quiet. Drums were unchanged at $2.35 to $2.40 per gallon, exwarehouse, according to quantity.

**Palm**—Buying interest confined to immediate needs. Market was unchanged and fairly steady at 14¾c. to 15¾c. per pound, drums, spot as to quantity and 12c. for tankcars.

**Peanut**—Crude was easy and lower. Tankcars were sold at 15c. per pound, f.o.b. mills, southeast. Refined was reduced to 18½c. tankcars, prompt delivery, New York basis.

Peanuts crushed in March totaled 29.9 million pounds for oil and meal, bringing the total for the first eight months of the season to 160.2 million pounds compared with 132.1 million for the same period last year.

**Soybean**—Lower beans weakened cash oils. Crude dropped to 12⅞c. per pound, tankcars, Decatur, unrestricted, prompt shipment. Refined salad was lower at 15¼c., tankcars, New York, prompt delivery.

**Tung**—Slow demand coupled with cheaper government-owned oil further weakened the market. Imported oil was lower on the basis of 26c. per pound, tankcars, New York, prompt delivery. Drums declined to 27½c. to 28c. per pound, spot, depending upon quantity. Domestic oil was quiet and nominal around 26c., tankcars, f.o.b. mills.

CCC sold 300,000 pounds of tung oil at 26.01c. per pound, bulk, f.o.b. Marrero, La., last week for unrestricted delivery. Previous sales took place at 26½c., same basis.

## Miscellaneous

**Cocoa Butter**—Prices were firmer, ranging from 56½c. to 61½c. per pound, spot, according to quantity.

**Copra**—Market was unsettled, $2 lower. Prompt shipment was offered at $160 per ton, c.i.f. Pacific coast.

**Flaxseed**—Crushers raised bids on cash flaxseed 3c. a bushel to $3.15, spot and to-arrive, basis Minneapolis. The advance failed to arouse any appreciable pickup in shipping advices and strong tone persisted. The upturn at Minneapolis brought prices in line with bids at the head of the lakes.

## Fats and Greases

**Greases**—Trading was moderate, for domestic needs. Market was steadier, with offers light and quoted slightly higher. Choice white was maintained at 8¾c. to 9c. per pound, tankcars delivered. Yellow ranged from 7½c. to 7¾c., same basis as to acid.

**Lard**—Market was irregular and firmer. Cash lard was quoted at 11.075c. per pound, drums, Chicago.

**Tallow**—Firmer undertone prevailed due to increased export inquiry interest. Trading was moderate. Offerings were limited. Bleachable fancy ranged from 8c. to 8¼c. per pound, tankcars, delivered; prime, 7¾c. to 7⅞c.; guaranteed fancy sold at 8¼c. and 8⅜c. asked; special, 7⅝c. to 7¾c. and No. 1, 7½c. to 7⅝c., same basis. Guaranteed fancy was nominal at 8½c., bulk, f.o.b. steamer and 1c. more for drums, f.a.s.

## Cake and Meal

**Cottonseed Meal**—Supplies are light. Trading was confined chiefly for local delivery. Meal, 41 percent, ranged from $61 to $63 per ton sacked, Mississippi Valley area and $60 to $63 in the southeast.

**Linseed Meal**—Firmer tone developed in this market and prices were well held. Pressure of re-sale offerings for nearby virtually disappeared. Switches in feed formulas from soybean meal to linseed was principal factor in strength. Extracted meal, 34 percent protein, bulk, in carlots, f.o.b., Minneapolis, was held $56.50 a ton for May and $57 for June-July and old process meal, 32 percent at $60.50 for April-June; $61, July-August, and $62.50, September-December.

**Soybean Meal**—Weakness persisted in this market and prices declined $3 per ton. Fair demand prevailed for meal, but not enough to absorb heavy production. Feed business in scattered areas improved

# Oils, Fats and Waxes

moderately but gains were offset by substitutions for soybean meal. Meal, 44 percent protein, was quoted $72.50 a ton, unrestricted, bulk, Decatur, prompt delivery.

## Waxes, Vegetables

Buying interest in most vegetable waxes was limited while a fair volume of business was noted in carnauba on spot for immediate and later delivery at unchanged quotations. Shipments from Brazil were quiet and firmly held. Crude beeswax remained strong owing to the scarcity and higher cost of replacements from primary sources. Refined beeswax continued unchanged and steady.

## *Foreign Trade: Plus Side*

*—Continued from page 3*

March were valued at $1,687.1 million, 4 percent below the February total of $1,763.5 million, but $190.8 million ahead of March last year. For the first three months of this year, exports have amounted to $5,099.8 million, compared with $4,641.6 million last year.

Imports were at about the same level in March as in February. The March total was $1,127.1 million compared with $1,121.6 million in February. For the first three months they were down to $3,367.8 million from last year's first quarter total of $3,767.4 million.

## *Research: A Hinge*

*—Continued from page 4*

cessity to fill the needs of a rapidly changing world. He cited these trends:

- The population explosion, creating a need for low-cost food, clothing and shelter.
- Depletion of natural resources. Because more arable land is being used for housing and road-building, production must be increased on the remaining acreage—through chemistry.
- The rise in living standards.

But research costs are rising—often faster than sales gains. Salaries, equipment, taxes, laboratories, land, waste disposal—everything costs more, Mr. Mayfield noted.

"There is another research cost," he went on, "that does not show up on the surface but has become increasingly onerous in the past two years. It is an expense from which we can get no return, in the usual sense."

**Hercules Costs Cited**

In the past eighteen months, it was noted, this has cost Hercules Powder Company over a million dollars—"Research dollars, you might say, just for the privilige of doing business related to the food industry."

Mr. Mayfield was talking about toxicity tests to meet Food & Drug Administration regulations.

"To get the required information," he said, "it was necessary for us to spend an extra one-half million dollars for specialized equipment and an extra nine months at work before we could satisfy provisions of the FDA regulations."

What's the answer? "It is apparent," said Mr. Mayfield, "that a major part of our corporate research strategy must be to seek ways to get the greatest return from every research dollar spent, whether it be in finding new products, improving old ones, or developing new uses for existing ones."

**Words From duPont's Dawson**

Addressing the same meeting, David H. Dawson, a vice-president and director of E. I. duPont de Nemours & Co., cited these areas as targets for the industry's research effort:

- Replacement by man-made polymeric materials of large volumes of glass, paper, wood, leather and the metals.
- Further replacement of natural fibers by synthetics, and development of technics "which will replace the still cumbersome procedures of converting fibers into textile products."

Given the reality of price erosion and the continuing increase in marketing and research costs, "what are the chances the chemical industry can continue to grow at a rate close to double that of the nation's economy?" asked Mr. Dawson.

"Despite the talk of the industry's increasing maturity, and despite the obvious fact that it is patently absurd to expect such a trend to continue for the indefinite future," he answered, "I am forced to conclude that it is reasonable to expect that it will continue for at least another decade."

## *Polypropylene Pact Inked*

*—Continued from page 3*

sell the polyolefin, which will be made at the rate of 25 million pounds annually at the plant of Novamont Corporation, a Montecatini subsidiary, at Neal, W. Va.

Both Grace and Chemore will market the polypropylene under Montecatini's trade name, "Moplen." The new plant is expected to begin production in the third quarter of this year.


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# Petroleum Derivatives

**Key features of the aromatic solvents market include: Benzene in adequate supply for contract customers with little or no excess material available for spot buyers. Toluene calls are strong in the South and Southwest for agricultural solvents. Demand in the Rio Grande Valley is emphasized in reports. Significant toluene volume is also moving into toluene di-isocyanate production** on the basis of polyurethane resins boom. Xylene activity remains centered in ortho. Solvent application may recoup soon if increased auto and appliance production rates are sustained. In aliphatics: Heptane is reported weak. Slash in export market due to expanding overseas capacity has hurt US makers. Hexane is well supplied with manufacturers of polish showing newsworthy interest. Soybean market is strong although the crush remains limited. In lpg's, warm April weather cut production, boosted stocks. Waxes continue routine. Mineral oils highlight is an added application, this time in polyethylene projection molding.

Petroleum derived toluene and xylene may become subject to a ¼ cent a gallon import tax. That's the possible outcome of Bureau of Customs' reevaluation of the present tax-free import status of these products.

In considering declaring imported toluene and xylene subject to the petroleum tax provisions of the 1954 internal revenue code, the Bureau cites the petroleum origin of the products as the basis for its reasoning.

No hearing will be held according to the Bureau, but written opinions, data and arguments pertinent to the tax status will be accepted until June 2.

### Price Trends

**Advanced**
None

**Reduced**
None

**Comparative Price Indexes**
(100=1948 average)

| Last week | Prev. week | Last month | May 6, 1960 |
|---|---|---|---|
| 104.10 | 104.11 | 103.74 | 103.82 |

*For Current Prices See Page 10*

## Aromatic Solvents

**Benzene**—Major producers report contract customers continue to be adequately supplied but that spot customers are encountering difficulties in securing needs.

This situation becomes particularly emphasized in areas distant from the Gulf.

Demand is undiminished. Styrene production, which had been in a slide since last summer, reversed itself in February and achieved marginal gains although SM output for the first two months of 1961 was 36 million pounds below the same two-month slot last year.

Other benzene derivatives not faring well in production when compared with last year are—monochlorobenzene, down 31 million pounds, phenol—down 10 million pounds, dodecylbenzene, down 10.8 million pounds, and aniline, down 1 million pounds.

Decline in MCB production is attributed by trade sources to unfair comparison to last year. Heavy volume trade sales were made in the first quarter 1961 which reflect unreasonably on this year's production totals, observers comment.

Output for the first two months this year—75 million pounds—does compare favorably with output in previous years, however.

Drop in phenol production has a dual cause. First the heavy inventory built up before the January price increase and, secondly, a downturn in phenolic resins business in the first quarter.

**Toluene**—In the domestic market quantities of toluene are reported moving into agricultural solvents in the South and Southwest. The Rio Grande Valley is one of the heaviest consuming areas at present.

Other solvent uses are reported as normal.

One interesting area in which toluene appears to be moving in good quantity is into production of toluene di-isocyanate.

TDI, the starting point for polyurethane resins, has shown remarkable growth in just a few years and promises to expand even more rapidly in the near future.

From an output of barely 100,000 pounds in 1956, TDI production hit an estimated 35 million pounds in 1960. This figure is expected to triple by 1965 according to some sources.

Toluene export market is good but off somewhat from the strong position held around the first of the year. Price is indicated at 18½c. a gallon for overseas shipment.

**Xylene**—Demand for ortho continues to dominate the xylene production scene.

One major producer comments that domestic and overseas shipments of the fraction are undiminished.

Industrial solvent uses are rebounding on the basis of upturns in steel and auto production rates.

## Aliphatic Solvents

**Heptane**—Currently described as not firm by some trade sources, the heptane market has been hurt by several factors.

First off, the export market has been cut as the result of new plant capacity constructed overseas.

A case in point is the Italian market. While US trade observers describe the Italian product as an equivalent and not true heptane, the material is sufficient for that country's needs.

Fortunately hexane—through widened use in the US—has not been as affected by the reduction in exports as has heptane.

Another factor which has weakened the US heptane market has been added domestic capacity.

One trade source reports price shading as a practice in the current market.

**Hexane**—Overall supply is reported freely available in major marketing areas of the North and South.

One trade source comments that volume high-purity hexane may be difficult to gather on occasion but that run of the mill material can be supplied in any quantity.

Price remains firm.

Future supplies are expected to be reduced somewhat on the basis of recent cuts in Texas and Oklahoma allowables.

Trade sources report an increase in hexane application by manufacturers of polish.

In another area, soybean crush activity appears to be on the ascent again. Although March receipts declined, the crush was fractionally larger while stocks dropped.

## LPG's

With the advent of seasonal warm weather throughout most of the country, production of lpg's plummeted in the first two weeks of April.

All categories showed declines except isobutane. Major losses occurred in propane and butane.

Total production in the first two weeks of April was 395,988,000 gallons, down 61 million from output in the previous fortnight.

Stocks climbed approximately 69 million gallons.

**Butane**—Production dropped 25 million gallons to a total of 100.1 million gallons for April 1-15.

Stocks climbed 25.6 million gallons to 260.6 million gallons on April 15.

**Ethane-ethylene**—Output during April 1-15 was 27.8 million gallons, down from 29.1 million turned out during March 16-31.

Stocks were unchanged at 913,000 gallons.

### Crude Oil Stocks Climb

Domestic and foreign crude petroleum stocks at the close of the week ended April 22 were 4,674,000 bbls. higher than at the end of the preceding week.

Week ended April 22—249,378,000 bbls.

Preceding week—244,704,000 bbls.

This increase comprises an increase of 3,611,000 bbls. in stocks of domestic crude and an increase of 1,063,000 bbls. of foreign crude.

(Source: Bureau of Mines)

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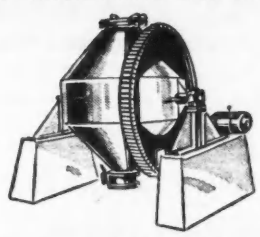

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1—Bird 36" x 50" solid bowl continuous, 347 SS.
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3—Sharples PY14, PN14 Super-D-Canters 316 S.S.
**2—Fletcher 48" Suspended 316 S.S. Perforated Basket.**
2—Sharples #16, 304 S.S., 3 HP motor.

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1—5500 gal. 316 SS clad pressure Tanks, 250 psi.
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**2—Baker Perkins 150 and 100 gal. jacketed double arm sigma blades.**
1—Baker Perkins 50 gal. jacketed, double arm.
5—Day "Cincinnatus" double arm, 250 and 100 gal.
2—Steel jacketed Powder Mixers, 225 and 350 cu. ft.
1—Patterson 6' dia. Conical Blender 15 HP.
1—3' dia. Simpson Intensive Mixer.
**1—2' dia. Simpson Intensive Mixer, 304 SS.**
**1—45" dia. Lancaster Mixer, 7-1/2 HP motor.**
1—Patterson Kelly 150 cu. ft. Twin Shell Blender.
**1—Patterson 80 cu. ft. conical Blender, 304 SS.**

## MISCELLANEOUS

**3—Kinney Vacuum Pumps, 1000 cfm, 10 micron, 15 HP.**
1—Thropp 6" x 12" 2 Roll Mill, 7-1/2 HP motor.
3—Nikro Pulverizers, 1 SH, 1S1 and Bantam.
2—Hardinge 5' x 22" steel lined conical Ball Mills.
4—Mikro Pulverizers, #4TH, 1SH, 1S1 and Bantam.
3—Abbe 2½' x 3' porcelain lined Pebble Mill XP motor.
1—Raymond 10" vert Mill, 10 HP.
1—No. 1 Ball & Jewell Rotary Cutter.
1—#18 Cumberland Rotary Cutter.
3—Swenson Walker Continuous Crystallizers, 24" x 30' sections.
2—#842 Rotex Sifters 60" x 84" double deck.
**1—#24 Rotex Sifter, 20" x 64", Quadruple deck.**

***Partial List of Values — Send for Complete Circular***

**TEXAS OFFICE: 4101 San Jacinto Street, Houston 4, Texas — Tel.: JAckson 6-1351**

# BRILL EQUIPMENT COMPANY

**35-61 JABEZ ST., NEWARK 5, N.J. Tel.: MArket 3-7420**

# JUST PURCHASED

72—PFAUDLER 1400 GAL. BLUE G/L KETTLES, JKT. & AGIT., OPEN TOP.
18—PFAUDLER 1250 GAL. BLUE G/L REACTORS, CLOSED, JKT. & AGIT.
18—PFAUDLER 11,500 BLUE G/L HORIZ. TANKS, 20# WP NICKEL COILS.
72—PFAUDLER 250 GAL. BLUE G/L JKT. KETTLES.
60—1350 GAL. T347 SS TANKS, ASME 60# WP., COILS.
18—3650 GAL. VERT. STAINLESS STEEL TANKS.
9—13,300 GAL. VERT. STAINLESS STEEL TANKS.
20—27,500 GAL. HORIZ. STEEL TANKS, ASME 75# WP.
6—1450 SQ. FT. STAINLESS VERT. GAS EXCHANGERS.
3—WORTHINGTON 3500 CFM AIR COMPRESSORS, 24 x 15, 500 HP 4-CYLINDER GAS-ENGINE DRIVE.
150—WORTHINGTON 2" x 1½" WORTHITE PUMPS.
54—5200 GAL. HORIZ. STEEL TANKS, 55# WP.

## DRYERS

1—BUFLOVAK 32" x 72" TWIN-DRUM DRYER, CHROME-PLATED, STAINLESS CONVEYORS, HOODS, ETC. LATE MODEL!
2—Louisville 6' x 30' rotary steam-tube dryers.
5—F. J. Stokes #138J-16 vac. shelf dryers, 195 sq. ft., 16 shelves, 40" x 44".
5—BUFLOVAK 42" X 120" DRUM DRYERS, ASME 160#.
1—American 42" x 120" dbl. Drum dryer, ASME, stainless.
1—Buflovak 42" x 90" dbl. drum dryer.
1—AMERICAN 36" X 84" DBL. DRUM DRYER, ASME, VACUUM.
1—BUFLOVAK 5' X 12' SINGLE DRUM DRYER, VACUUM.
1—Buflovak 32" x 52" dbl. drum dryer, ASME 100# WP.
1—Buflovak 6" x 8" dbl. drum dryer, vacuum.
2—DAVENPORT 8' X 60' ROTARY DRYERS, 7/16" WELDED.
1—Louisville 4'6" x 25' rot. steam-tube dryer, welded.
1—Hardinge 4' x 30' rot. steam-tube dryer.
1—Bartlett 3' x 15' rotary dryer, everdur shell.
1—NERCO-NIRO PORTABLE STAINLESS SPRAY DRYER.

## FILTERS — CENTRIFUGALS

3—Sweetland #12 pressure-leaf filters. (72) Leaves.
5—SHRIVER 48" CAST IRON FILTER PRESSES, 1250 SQ. FT.
6—VALLEY 36" ALUMINUM FILTER PRESSES, 1000 SQ. FT.
1—Niagara #510-28 T316SS pressure filter.
1—KLEIN 97 SQ. FT., T304SS PRESS. LEAF FILTER.
1—OLIVER 5'3" x 8' PRECOAT ROT. VACUUM FILTER—UNUSED.
2—Oliver 5'3" precoat T316 SS rot. vacuum filters.
10—DAVENPORT DEWATERING PRESSES; #1A, 2A, 3A.
25—SHARPLES #AS-16V SUPER CENTRIFUGALS, INCONEL, SLUDGE DISCH.
3—Sharples #C-20, C-27 Super-D-Hydrators, T316SS.
2—Sharples #16-P cent., T304SS, pressuretite.
3—BIRD 24" x 24", MONEL SLOTTED-BOWL.
1—Bird 24" x 38", Steel, cylindircal bowl.
2—BIRD 24" x 38", T304SS CONICAL BOWL.
1—TOLHURST 48" SUSP. CENT., T304SS.
5—A.T.&M. 40" SUSP. CENT., T304SS SOLID, 40/5 HP.
2—A.T.&M. 32" Susp. Cent., T304SS solid, 30 HP.
1—A.T.&M. 12" Susp. Cent., T304SS.
2—DeLaval #BUH Stainless hermetic clarifiers.

## MIXERS

50—BAKER-PERKINS #17, 200 GAL. SIGMA JKTD. MIXERS.
1—BAKER PERKINS #16-UUEM, 150 GAL. DISPERSION MIXER, 150 HP XP MOTOR, 125# JACKETED, VAULTED COVER.
1—BAKER PERKINS #15, 100 GAL. DISP. BLADES, JKT., T347SS.
1—BAKER-PERKINS #15-UUMM, 100 GAL. DISPERSION MIXER, 100 HP, ASME JACKET, CORED BLADES, COMPRESSION COVER, MOTORIZED TILT.
1—BAKER-PERKINS #15, 100 GAL. DISP. MIXER, T347SS, JKT.
1—J. H. Day #6 Cinc., 100 gal., sigma blades, Stainless.
2—J. H. Day #5 Cinc., 75 gal., sigma blades.
1—J. H. Day #2 Cinc., 20 gal, jktd., sigma blades.
1—GEMCO 60 CU. FT. T304SS CONICAL BLENDER.
13—ABBE 6' x 8' PEBBLE MILLS, STONE LINED, 30 HP.

## JUST PURCHASED
## T304 STAINLESSS VERT. TANKS
*(Sandblasted Finish)*

1—2700 GAL. 7'6" x 7'6", DISHED BOTTOM, FLAT TOP, ⅜" CONST., 100 SQ. FT. COIL. TURBINE AGIT.
3—2100 GAL., 8' x 5'6", DISHED BOTTOM, FLAT TOP, COILS & TURBINE AGIT.
3—2100 GAL., 8' x 6', FLAT TOP, SLOPING BOTTOM, ⅛" CONST. COILS.
1—2000 gal., 8' x 5' cone bottom hinged dished top. ⅜" const.
1—1300 gal., 6' x 6', dished bottom, hinged dished top. 5/16" const.
2—1000 gal., 4'6" x 8'6", flat heads. 3/16".
1—1000 GAL., 4'6" x 8'6", DISHED HEADS, 3/16".
4—1000 gal., 6' x 5', flat heads, 14 ga.
1—900 gal., 6' x 4', dished bottom, open top.
1—750 GAL., 5' x 5', DISHED HEADS.
1—575 gal., 5' x 4', flat heads.

**PERRY EQUIPMENT CORP.**
1407 N. SIXTH ST., PHILA. 22, PA.
Phone: POplar 3-3505

## IT COSTS LESS at M&E

York 300 ton Ammonia Ice Plant Model Y-38. 450 HP synch Mtr.
Shriver 42" x 42". Plate & Frame C I Filter Press, 40 plts & frms, hydraulic closing.
Fiedler 60" x 72" steel Ball Mill. 25 HP gear mtr & brake. 6000# charge steel balls.
Sharples Model D-2 SS Centrifuge w/Separator bowl. 7½ HP Expl Mtr.
Buflovak Vac Oven. 6 tray. 22" x 22", Complete with vac Pump & Motor.
Davenport Model 3-A cont. Dewatering Press. Cap 2600# per hour.
Kemp Inert Gas Producer. 6000 CFH, Model 6-MIHE. New 1958. used 6 mon.
Merrick Model PIV cont. weighing Scale. type S 180. 12" belt, 6000# hr.

**MACHINERY AND EQUIPMENT CO., INC.**
123 TOWNSEND ST. · SAN FRANCISCO 7, CALIFORNIA

1—Thropp 18x50" Rubber Mill, self contained with reducer, 125 h.p., motor, brake, etc.
1—Day 150 gal. Imperial Mixer, jack., with 75 h.p. vari-speed ex. proof motor; tilting type.
1—Day Size OA Twin Motion Gearless Pony Mixer, stainless steel, with ¾ h.p. 2 speed ex. proof motor. NEW—NEVER USED.
1—Sperry 36" STEAM JACKETED 4 eye cast iron Filter Press, having 39 chambers, 2½" cake.

**BILL WOLF, Inc.**
2708 CAROL ROAD UNION, N. J.
MUrdock 6-8883

## ECH SPECIALS

Readco SS J'ktd. 6 qt. Lab Mixer, vac. cover
Day 75 gal. sigma arm Mixer, 7½ HP motor
Oliver 316 SS Filter 6' dia., 25 sq. ft. cap
Pfaudler 1500 gal. Glass Tank, closed top
Blaw Knox SS 100 gal. Autocl, agtd. 1000 psi
Cavagnaro sig. arm 200 gal. SS mixer, 75 hp
Simpson 24" Lab. Mix Muller with ¾ mtr.
Patterson SS 5 cu. ft. Twin Blender, 3 HP
Ribbon Blenders, SS & Steel, NEW & USED
WE BUY COMPLETE PLANTS OR SINGLE UNITS
Tel. SOuth 8-4451—4452—8782
YOU CAN BANK ON
**Equipment Clearing House, Inc.**
111 33 Street, Brooklyn 32, N.Y.

## EQUIPONOMICS

BIRD Continuous Centrifuge 18" x 28" 316 S.S. (1952) 15 H.P. Washing

COLUMN S.S. 4' D x 65' high, 55 plates.
TANKS S.S. 304, 2500 gal. 7' x 8' new.
KNEADER MASTER—Paterson 2½ gal.
COLLOID MILL—Premier UB5 S.S. 5 H.P.
CENTRIFUGE—ATM Susp. 48" 316 S.S., 50 HP.
ROLLER MILLS—Ross 14" x 32" Hi Speed Ross 4½" x 10".
CENTRIFUGE—Tolhurst 20", 40" Rubber Lined.
PEBBLE MILL—Abbe—50 gal.
TABLET PRESSES—DS3, DDS2, Stokes.

**PROCESS PLANTS SERVICE, INC.**
287 Central Ave., Clark, N.J. Tel. FUlton 1-1103-4

2—OLIVER PRESS PRECOAT FILTERS 5'3"—Type 316 S.S.
4—RIBBON BLENDERS, 2500 gal., 1200 gal.
2—AUTOCLAVES S.S., 50 gal. 2000 lb., 3½ gal., 2000 lb.
1—DRUM DRYER, Proctor & Schwartz.
4—COLLOID MILLS, 5 HP EX PR., 15 HP, 40 HP.

**Machinecraft Corporation**
800 Wilson Avenue, Newark 5, New Jersey
Mitchell 2-7634

## DAY HY-R SPEED MILL
## HERSEY 5' x 26'
## ROTARY STAINLESS DRYER

CENTRIFUGALS—12" 30" 40" & 48". Amer. Tool 18' Stainless.
CENTRIFUGES—Sharples #5 & 6 S.S.
DRYERS—Hersey 5' x 26' Rotary Stainless Buffalo 32" x 90" Double Drum Dryer Buffalo Vac. Drum Dryer 24" x 20". Despatch Ovens Elec. Heated. 3—Devine & Stokes Vac. Shelf Dryers.
FILLERS—Powder & Liquid. Also Labelers.
FILTERS—#2 Sweetland Filter. Oliver Rot. Vac. Filter 3' x 1'. Hercules Leaf Filter 36" dia. Ertel 6" & 10" Disc type.
FILTER PRESSES—6" to 36" Iron & Wood.
KETTLES—Stainless Jack. 20 to 500 gals. Dopp 350 gal. Cast Iron Jack. Vacuum. Devine Impreg. Units 30" & 36" dia. Steel Alum & Copper 5 to 2,000 gals.
MILLS—Raymond #00 Pulverizer 30 HP complete. Also #0000. Mikro Pulverizer #4, 2S1, 2TH, ISH. Hammer Mills & Pulverizers 3 to 50 HP. Williams #3 & #2XX Hammer Mills. Taylor-Stiles 7½ HP Cutter. Rotary Cutters 1 HP & up. Sprt-Wald Stainless Spike Crusher. Pebble, Jar & Ball Mills, Lab to 6' x 8'. 3 Roll, 9" x 24", 12" x 30", 16" x 40". Lehmann 4 Roll W. C. 12" x 36" Steel.
MIXERS—Baker Perkins 100 gal. Jack. B. P. 15 HP—Masticator Mixer. Day Imperial 75 & 150 gal. Change Can Mixers 8, 15, 40, 80 gal. Day Jumbo 700 gal. horiz. Mixer. Sprout-Waldron 10,000# horiz. Spiral Mixer. Blystone 3000# horiz. spiral Mixer. Day 1000# horiz. Dry ribbon Mixer. Dry Spiral Mixers 50 to 10,000#. Lancaster 6' dia. 25 HP & #1, 3 HP.
PUMPS—Vacuum 10 to 500 CFM. Gould 75 HP Centrifugal 250 PSI.
SIFTERS—Day, Robinson Rotex type.
SOAP MACHINERY—Toilet, Laundry, etc.
TABLET MACHINES—Colton 4½ T. Stokes R single punch & RD1 rotary.
TANKS—Stainless, GL., Lined, Steel.
MISC. Boilers Gas & Oil. Conveyors.

Partial Listings — Write for Bulletins

**STEIN EQUIP'T CO.**
107 8th St., Brooklyn 15, New York
STerling 8-1944

## CHEMICAL PLANT SALE
NIAGARA FALLS, N.Y.

## STAINLESS STEEL

B&P 300 gal. 18DIM Sigma Blade Mixer.
Dopp 1000; 1700 gal. Reactors jkt., agit.
435 sq. ft. Single Effect Evaporator.
Goslin Birm. 36"x24" Rotary Vac. Filter.
Sharples C27 Super-D-Hydrator.
3'x18" Crystallizer, jkt., agitated.
Swenson 24"x20' jacketed Crystallizers.
Brown Fintube Exchanger, 618 sq. ft.
Triplex 2¼"x4" Pumps 18 GPM @ 2000 PSI.
Centrifugal Pumps 1", 1½" & 2".

### S.S. COLUMNS

78"x18' Bubblecap 14 tray, 50 PSI.
72"x30' Bubblecap 21 tray.
54"x30' Bubblecap 26 tray, 100 PSI.
48"x41' Bubblecap 40 tray, 100 PSI.
36"x20' Packed, 100 PSI.
30"x22' Packed, 75 PSI.
14"x18' Packed, 10 PSI.
12"x18' Packed, 100 PSI.

### S.S. TANKS

4500 gal. 6'x25' dish/cone heads, 25 PSI.
4000 gal. 8'x12' dished heads, coiled.
4000 gal. 5'6"x24'6" dish/cone heads, coiled.
4000 gal. 7'6"x14' dished heads.
3500 gal. 8'x9' dished heads.
1500 gal. 6'x6'9" dished heads.
1250 gal. 5'x8' dished heads, agitated.
750 gal. 5'x5' plain and agitated.
500 gal. 4'x5' plain and agitated.
400 gal. 4'x4' plain and agitated.
300, 250, 150 & 100 gal.

### MISCELLANEOUS

Pfaudler 500 gal. ELL glass lined Reactor.
Buflovak Vac. Drum Dryer, 6"x8" Drums.
Buflovak 6' Vacuum Crystallizers.
Nash Hytor Vacuum Pumps, #9, K5, #4.
Copper Tanks 3500 gal. to 200 gal.
Condensers in Stainless & Copper 2300 to 21 sq. ft.
Copper Bubblecap Columns 6' to 2' D.

*Write for Detailed Catalogue*

**HEAT & POWER CO., INC.**
60 E. 42nd St., N. Y. 17 MU 7-5280
Site Office, Pine Ave. & 47 St. BU 5-3644

# EQUIPMENT
## for CHEMICAL AND ALLIED INDUSTRIES

1—Baker Perkins, Size 16, Type UUEM, 150 gal. jacketed double arm, dispersion type mixer, complete with compression cover and 100 HP motor.

1—Niagara stainless steel filter, Model 510-28.

1—Oliver stainless steel rotary vacuum filter, 3' x 4'.

12—Sweetland #12 filters with 72 SS leaves.

1—Sturtevant #7 SS dustite rotary batch blender—NEW.

1—Banbury #1 mixer with 30 HP motor.

15—Robinson type 304 SS horizontal blenders, 255 cu. ft.

1—Robinson type 304 SS horizontal double ribbon blender, 125 cu. ft.

1—J. H. Day 5 gal. double arm sigma blade mixer, SS.

1—Stokes stainless steel granulating mixer, Model 21-J.

1—Stokes SS jacketed rotary vacuum dryer, 2' x 6'.

1—Pfaudler Series P, 30 gal. glass lined jacketed reactor, complete with agitator and drive.

1—Hersey stainless steel rotary dryer, 3' x 20'.

3—Buflovak stainless steel jacketed rotary vacuum dryers, 3' x 15' and 5' x 30'.

1—Buflovak 42" x 100" double drum dryer, complete.

1—American 42" x 120" double drum dryer, complete.

2—Pfaudler Series EM 300 gal. glass lined jacketed reactors.

2—Theo. Walters Hastelloy B 300 gal. jacketed reactors.

1—Pfaudler Series EL 750 gal. glass lined jacketed reactor.

2—Pfaudler Series R 5000 gal. glass lined jacketed reactors, complete with agitators and drives—NEW.

1—Alloy Fabricators 600 gal. steel jacketed autoclave with agitator and drive, 125 psi internal, 60 psi jacket.

1—Struthers Wells SS single effect evaporator 1150 sq. ft.

2—Process Equipment SS 10,000 gal. vertical storage tanks.

1—Sprout Waldron pelletizer, Type 501 FF.

1—Williams "Comet" 4 roll mill, complete, NEW.

1—Raymond 2 roll high side mill.

1—Vulcan stainless steel bubble cap column, 4' x 25 plates.

1—Badger type 316 SS bubble cap column, 36" dia. x 8 trays.

1—Griscom Russell SS heat exchanger, 900 sq. ft.

1—Downington SS heat exchanger, 750 sq. ft.

3—Badger SS heat Exchangers, 500 sq. ft. and 600 sq. ft.

20—Davis Engineering SS heat exchangers, 102, 119, 136, 166 sq. ft. NEW.

2—Davis Engineering, Carpenter 20, heat exchangers, 120 sq. ft.

**R. GELB & SONS, INC.**
UNION, NEW JERSEY Est. 1886 MUrdock 6-4900

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**FOR IMMEDIATE SHIPMENT**
1—30 gal. Model P Pfaudler Reactor.
1—Moorehouse B-1400 20 H.P.
2—Day 15 gal., 8 gal. Pony Mixers.
1—Mikro Pulverizer, 1 S. H.
1—24" Seitz Filter Press.
1—400 lb. ribbon Blender, 5 H.P.
3—125 gal. Portable Tanks.
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ST 8-5502 ST 8-5503

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5—#12 SWEETLAND FILTERS
In Stock
72 leaves on 2" centers complete with hydraulic closing. Motor driven sluicing devices and special deep bottoms. Very excellent condition.
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**FOR THE BEST IN USED EQUIPMENT**
Conical Dry Mixer 192 cu. ft. vol.; 125 cu. ft. opr. vol., with 15 H.P. Unibrake Motor.
4—Werner & Pfleiderer 200 gal. jktd., sigma blade Shredders.
2—Ball & Jewell #2 Cutters.
4—Link-Belt Vibrating Screens 4' x 8'.
1—Jeffrey Vibrating Conveyor.
1—30" Sperry Filter closed del., 3-eye, 39-plates, 40-frames.
1—42" Sperry Filter 40-plates, 41-frames, hyd. closing, open del.
1—International Ball Mill, porcelain lined, 48" x 60", 15 H.P. Unibrake Motor, 2-drums balls. Like new.
1—Schutz-O'Neill Pulverizer 22", Style D.
1—Abbe Pebble Mill 5' x 22'.
1—Sparkler Filter 33-S-28, with Scavenger Plate, steam jacketed.
1—2 qt. Sigma Blade S.S. Mixer.
1—250 gal. S.S. Kettle, nickel jacket, 100#.
1—Patterson Steam Jkt. Ball Mill 42" x 36" dia.
2—Louisville Steam Tube Dryers 6' x 25'.
1—430 S.S. Tank 3000 gal. vert. ⅜ plate, with 2 pc. cover.
2—Vacuum Pumps, Gardner-Denver, 5" bore 4" stroke, with 7½ H.P. motors.
1—#316 S.S. Reactor 265 gal. jkt.
2—Twin Screw Mixers 120 gal. jkt.
2—Aetna Water Stills 20 gph, new.
Large stock of new and used H.P. Boilers, Tanks, Pumps, Heat Exchangers, Freon Compressors, Stainless Steel & Brass Valves. Advise us as to your requirements.
**H. LOEB & SON** 4643 LANCASTER AVE., PHILADELPHIA 31, PA.

**CHOICE EQUIPMENT**
2—Sparkler 14" & 8" Stainless Steel Filters.
5—Hercules 16" & 8" Square Stainless Steel Filters.
5—Shriver #1 & #0 Diaphragm Pumps.
1—Homo Mixer #1H—1 H.P. XP Motor.
2—Lightnin Agitators 7½ HP 1200 rpm.
1—Charlotte ND—20 S.S. Colloid Mill XP Motor—600 gph.
2—Worthite S.S. Pumps—8" x 6"; 3" x 2".
1—Stainless Steel 30 gal. Autoclave 1000 psi, w/Jacket & Agitator, w/XP Motor.
1—Cyclotherm Package Boiler 250 psi, 600# hr.—20 HP.
4—Stainless Vacuum Receivers 80 to 100 gals. 250 psi.
1—Day Stainless Steel Blender 2000#.
2—Day Horizontal Spiral Blenders 2000# —M.D.
1—Patterson 5' x 6' Jack. Ball Mill, 25 H.P.
1—N. J. Model 86MX Pony Labeler.
1—Resina Automatic Screw Capper Model Spec. 60 pm.—Yr. 1954.
5—Rotex Screens 20" x 38" to 60" x 84".
1—Kent High Speed 3 Roll Mill 13" x 32".
1—Devine Vac. Shelf Dryer, 10 shelves, 40" x 43".
1—Pfaudler 800 gal. G. L. Jack. Tank w/Ag.
2—Day 40 gallon Pony Mixers, M.D.
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*We Buy Your Surplus.*
**THE MACHINERY & EQUIPMENT CO.**
91-93 New Jersey R.R. Ave., Newark 5, N. J.
Market 2-3103

**FILTER**—NEW—Stainless, Niagara 48" vertical 512 sq. ft. w/stainless slurry tank.

**GRANULATOR** — NEW — Stainless Stokes oscillating w/motor.

**VOTATOR**—NEW—Stainless, lab. model 4 speed.

**TABLET PRESSES**—Stokes R, B2, DS 3, RD 4 all w/varidrives.

**FEEDER/SCREENER** — S/S Syntron 24" x72" tot. encl. w/rectifier.

**MIXERS** — Double arm, unused S/S 3 qt. Read—11 gal. Bramley—25 gal. Fishtail (10 HP)—110 gal. Day Imperial.

**LAWLER COMPANY**
LAWLER PLACE METUCHEN, N.J.
LIBERTY 9-0245

**BUY with Confidence**

**OUTSTANDING MACHINERY-RIGHT NOW! WHEN YOU NEED IT!!**

2—Fitzpatrick comminuting units models D and K.
5—Rotex sifters 20" x 37", double deck.
1—Baker Perkins size 14-JUE 50 gallon jacketed double arm mixer, 50 HP.
2—Stokes single punch tablet presses models T and R.
2—Stainless steel high pressure autoclaves, 1 and 10 liters.
4—80 gallon stainless steel autoclaves, 500 PSI.
1—40" rubber lined suspended centrifuge, X proof motor.
2—Hersey steel rotary dryers, 6' x 23', 1½' x 16'.
5—Pebble mills 400, 250, 100, 50, 15 gallons.
1—Sparkler 18-D-4 steel filter with scavenger plate.
1—Type 347 stainless steel stripper column 24" x 18'.
4—50 sq. ft. condensers, brass tubes.

**Write or Phone Your Inquiries**

**chemical & process machinery corp.**
52 Ninth St.
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HYacinth 9-7200

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**Are you** interested in European common market? Old established West German chemical and pigment producer owns large industrial tract on Rhine looking for American manufacturer with funds to match theirs in joint venture. OPD 228.

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**For Sale:** 3' x 15' Stokes jacketed stainless Rotary Vacuum Dryer; 67 sq. ft. Buflovac single effect Evaporator; three Buflovac Double Effect Evaporators 608-708-840 sq. ft.; (2) 2,000 gal. and 1,500 gal. Vertical S.S. tanks; 3,000-1,500-900 S.S. Vacuum Tanks with coils; New Baker-Perkins S.S. T316 Ko-Kneader, model UP-200-RM, jacketed. Best Equipment Co., 1737 W. Howard St., Chicago 26, Illinois.

### POSITIONS OFFERED

**Salesman:** Must be experienced in marketing acetic and nitric acid, alcohols, glycols, plasticizers and solvents. Top salary plus liberal commissions. Mercury Chemical Corporation, Edison, New Jersey.

**Glycerine Chemist** Experienced in running analyses on CP and USP glycerine. Knowledge of ion exchange glycerine production desirable. Fatty acid experience also desirable. OPD 230.

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**Oils/Fats.** Exporter with worldwide connections seeks affiliation with producer of oils and/or fats, particularly those used in the soap industry. E. M. Paige & Co., 507 Fifth Avenue, NYC.


**ALUMINUM CONDENSER, 350 sq. ft.**
**4—24" FILTER PRESSES, S.S. fittings, wood frames.**
**LAPP FITTINGS, VALVES.**
**Continuous Stripping COLUMN 2x13.**
**ALUMINUM EVAPORATOR, Calandria type, 1300 sq. ft.**
**BLENDER—Double Cone, 70 cu. ft.**
**Ribbon Blenders, Hydraulic Pumps.**

**MACHINECRAFT CORP.**
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Mitchell 2-7634

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**4—KARBATE PUMPS**
Model 4-CA-9-½, 6" x 4" each with 40 HP Motor. Cap 1500 GPM @ 37' head. Used only 6 months. Condition like new.
Cost new ..... $1760.00
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# Coating Materials

*—Continued from page 57*

that French casein may hold the key to future trends in the market. Several questions remain unanswered he reports, but should the political situation in France clear up, the French may be in a position to move substantial amounts of casein on to the market.

An attractive subsidy would go a long way in providing a base for French casein to offer stiff competition to other caseins.

**Gypsum**—Bids are invited until May 12 by the Taiwan Cement Corporation, Taiwan, for the supply of gypsum rock estimated to cost $120,000, the Bureau of Foreign Commerce reports.

The bid (Job No. 61053) covers 10,500 metric tons of gypsum rock, crushed 6 inches or smaller, with Ca $So_4$. $2H_2O$ content not less than 96 percent. Shipment is to be made within two months from receipt of letter of credit. Vessel will be discharged at an average rate of 200 m/t per hatch per weather working day of 24 consecutive hours, Sundays and holidays excepted. Insurance will be covered by the buyer.

Bids should reach the Taiwan Cement Corporation, 113 Chung Shan North Road, Section 2, before 10 a.m. May 12. Prices per m/t should be quoted c&f Kaohsiung and f.o.b. plus ocean freight. Seller should inform Taiwan Cement Corporation, by cable "CEMTWAN," name of ship, quantity loaded, sailing date and port of departure.

## Coating Materials Briefs

**RESIN STANDARD OFFERED:** The first in a series of standards for TFE-fluorocarbon resins is now being considered by the industry for adoption, according to the Commodity Standards Division, Business & Defense Administration.

The standard establishes requirements and methods of testing for three grades of TFE sheets in minimum thickness of 1/32 inch. Requested by the Society of Plastics Industry, the new standard embodies suggestions from other interested industry organizations, and will be published as a voluntary standard of the trade after it receives sufficient endorsements.

**SUN OFFERS YELLOW PIGMENT:** A non-resinated benzidine yellow pigment which reportedly combines great strength with extremely low oil absorption is being offered by Ansbacher-Siegle Corporation, New York, a subsidiary of Sun Chemical Corporation.

"Rangoon Yellow Toner 73 T 51" is said to provide ink formulations of high strength coupled with low viscosity unattainable with other type of benzidine yellows.

**TARIFF-FREE QUOTAS POSTED:** Tall oil, rosin and spirits of turpentine have been granted 1961 tariff-free quotas by the Belgian government. Quota for tall oil has been set at 2,750 metric tons, rosin at 4,800 metric tons and turpentine at 2,200 metric tons.

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**MIAMI** (FRanklin 9-2668)—John Printup & Associates, Langford Building, Miami 32, Fla.
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# IMPORTS at United States Ports

## New York

ALBUMIN—300 bgs, P A Gaynar, Rotterdam
3-AMINOPROPANOL—3 dms, Rotterdam
AMMONIUM BICARBONATE—230 bgs, Chemical Manufacturing Co, Liverpool
295 dms, Basf Inc, Rotterdam
290 cs, Philipp Bros Chemicals, Rotterdam
AMMONIUM LAURYL SULFATE—25 dms, Cerro Sales Corp, Callao
AMMONIUM PERSULFATE—30 dms, Fischer Scientific Co, Rotterdam
160 dms, Rotterdam
ANILINE DYES—28 dms, Sandoz Inc, Rotterdam
140 dms, Geigy Chemical Corp, Rotterdam
133 dms, Carbic Hoechst Corp, Rotterdam
46 dms, Geigy Chemical Corp, Havre
20 dms, General Aniline & Film Corp, Antwerp
59 dms, H Bruckmann & Lorbacher, Bremen
440 dms, Rotterdam
23 dms, Havre
ANNATTO SEED—192 bgs, M J Golombeck, Vizagapatam
20 bgs, Foreign Domestic Distributors, Callao
ANTIMONY OXIDE—100 bgs, Indussa Corp, Antwerp
ARABIC GUM—253 bgs, T M Duche & Sons, Port Sudan
250 bgs, H Heide, Port Sudan
258 bgs, Marine Midland Trust Co, Port Sudan
200 bgs, Port Sudan
ASBESTOS FIBER—10.000 bgs, N American Asbestos Corp, Lourenco Marques
4,160 bgs, Huxley Westfried Corp, Lourenco Marques
1,200 bgs, N American Asbestos Corp, Durban
ASCORBIC ACID—24 dms, Byron Chemical Co, Kobe
BEESWAX—84 bgs, Marine Midland Trust Co, Porto Alegre
34 bgs, Curacao Trading Co, Ciudad Trujillo
25 bgs, Machado & Co, Ciudad Trujillo
84 blks, Koster Keunen, Djibouti
100 bgs, Zeitlins Sons, Paranagua
190 bgs, International Commodities Corp, Valparaiso
70 bgs, Kane Import Corp, Puerto Barrios
127 blks, Djibouti
113 bgs, Izmir
56 blks, Lobito
BERGAMOT OIL—40 quarter cs, Fritzsche Bros, Messina
40 half cs, Lo Curto & Funk, Messina
20 half cs, Citrus & Allied Essential Oils Co, Messina
24 half cs, Messina
BUTTONLAC—50 bgs, Haeuser Shellac Corp, Calcutta
CALCIUM CARBONATE—1,200 bgs, Pluess Stauffer, Antwerp
109 bgs, R T French, Hamburg
CALCIUM NITRATE—200 bgs, Wedeman & Godknecht, Bremen
CALCIUM PERBORATE—10 dms, Sinclair & Valentine, Gothenburg
CANANGA OIL—5 dms, Simpson Spence & Young, London
CARAWAY SEED—200 bgs, R J Spitz, Rotterdam
400 bgs, Rotterdam
CARBAZOL—40 cks, Terra Chemicals Inc, Rotterdam
CARBON, ACTIVATED—188 bgs, Connor Engineering Corp, London
CARDAMOMS—7 cs, F N S Corp, London
40 cs, K H Landes & Co, Cochin
CARMINE—4 dms, H Kohnstamm & Co, London
CARNAUBA WAX—112 bgs, M Argueso & Co, Fortaleza
112 bgs, Toronto Dominon Bank, Fortaleza
22 bgs, Smith & Nichols, Fortaleza
252 bgs, S C Johnson & Son, Parnahyba
63 bgs, Frank B Ross, Parnahyba
188 bgs, Smith & Nichols, Parahyba
376 bgs, Balfour Guthrie, Parnahyba
125 bgs, M Hassel & Co, Parnahyba
163 bgs, Cornelius Wax Refining Corp, Parnahyba
188 bgs, Baldini & Co, Parnahyba
313 bgs, M Argueso & Co, Parnahyba
126 bgs, Strahl & Pitsch, Parnahyba
631 bgs, Parnahyba
CASEIN—11.165 bgs, A J Mills & Co, New Plymouth
3.827 bgs, A J Mills & Co, Wellington
8,664 bgs, A J Mills & Co, Auckland
1.000 bgs, W L Willner Co, Buenos Aires
286 bgs, F H Paul & Stein Bros, Oslo
500 bgs, Tupman Thurlow, Buenos Aires
1.000 bgs, Crawford Kish & Co, Gdynia
CASSIA—80 bls, Rotterdam
CASTOR OIL—250 tons, Baker Castor Oil Co, Recife
300 tons, Salvador
CELERY SEED—350 bgs, Daarnhower & Co, Bombay
263 bgs, M J Golombeck, Bombay
175 bgs, Frank Tea & Spice Co, Bombay
87 bgs, Hiramoco American Co, Bombay
CINNAMON BARK—55 bgs, Rotterdam
CINNAMON QUILLS—50 bls, Colombo
CITRONELLA OIL—28 dms, Lo Curto & Funk, Keelung
CLAY—600 bgs, United Clay Mines Corp, Avonmouth
CLAY, BALL—2.142 bgs, United Clay Mines, Avonmouth
CLAY, CHINA—1.796 bgs, Anglo American Clays Corp, Avonmouth
CLOVE OIL—23 dms, Mombasa
COBALT SULFATE—30 dms, Philipp Bros Chemicals, Hamburg
COCONUT OIL—350 tons, National City Bank, Cebu
COD OIL—30 dms, Dyson Shipping Co, Keflavik
CODLIVER OIL—25 tons, Dyson Shipping Co, Keflavik
COPAL GUM—65 bkts, Wm H Scheel, Singapore
CORIANDER SEED—167 bgs, Wm E Martin & Sons, Rijeka
CRESYLIC ACID—129 dms, Midland Tar Distillers, Avonmouth
CUBE ROOT—221 bls, Foreign Domestic Distributors, Callao
CUMIN SEED—20 bgs, H Marmorek & Son, Alicante
200 bgs, Curacao Trading Co, Khorramshahr
749 bgs, Khorramshahr
CUTTLEFISH BONE—236 cs, Havre
CYANURIC CHLORIDE—250 dms, Vandergrift Co, Yokohama
DEGRAS—248 dms, Malmstrom Chemical Corp, Fremantle
56 dms, Olympic Shipping Co, Fremantle
112 dms, Crystal Extract & Chemical Co, Fremantle
176 dms, A I Malmstrom & Co, Fremantle
231 dms, Silvey Shipping Co, Fremantle
50 dms, J Fries & Co, Liverpool
50 dms, Gallard Schlesinger, Bremen
DEXTRIN—555 bgs, Manufacturers Trust Co, Rotterdam
DIACETYL—3 cs, Ungerer & Co, Rotterdam
20 dms, Dorf International, Rotterdam
DILL SEED—160 bgs, Louis Furth, Bombay
80 bgs, Bombay
DIPYRONE—43 bgs, Yokohama
DYES, COALTAR—20 dms, Toms River Chemical Corp, Rotterdam
27 dms, H Bruckmann & Lorbacher, Hamburg
40 dms, Orlex Dyes & Chemical Corp, Hamburg
24 dms, G A Abood, Rotterdam
ETHYL LACTATE—42 dms, H Bruckmann & Lorbacher, Rotterdam
FISHLIVER OIL—20 dms, Mitsubishi Corp, Yokohama
3 dms, Arista Oil Products Corp, Yokohama
FISHMEAL—5.837 bgs, Marine & Animal By Products, Cristobal
5.784 bgs, Marine Midland Trust Co, Callao
GUAR GUM—200 bgs, T M Duche & Sons, Rotterdam
GYPSUM—600 bgs, C B Chrystal Co, Liverpool
GYPSUM, CRUDE—20,896 tons, U S Gypsum Co, Hantsport
16.377 tons, National Gypsum Co, Halifax
HIBAWOOD OIL—2 dms, Fritzsche Bros, Kobe
HYDRAZINE HYDRATE—100 dms, E F Drew & Co, Bremen
ICHTHAMMOL—5 dms, Chas L Huisking & Co, Hamburg
IODINE, CRUDE—940 kgs, Chilean Nitrate Sales Corp, Tocopilla
IRON CARBONYL—108 dms, General Aniline & Film Corp, Rotterdam
IRON OXIDE—1.000 bgs, American Chemical & Pigment Co, Malaga
150 bgs, Hudson Shipping Co, Oslo
481 bgs, Malaga
ISOCHINOLIN—2 cks, Oil & Chemical Products Inc, Rotterdam
JAPAN WAX—20 cs, Wm Diehl & Co, Kobe
KARAYA GUM—60 bgs, T M Duche & Sons, Bombay
62 bgs, Colony Import & Export Corp, Bombay
183 bgs, Nehls & O'Connell, Bombay
62 bgs, Morningstar Paisley Inc, Bombay
LAVANDIN OIL—10 cks, Brown Bros, Cannes
LAVENDER OIL—2 bbls, Split
LEAD, RED—200 bgs, Rotterdam
LEAD, WHITE—300 bgs, Rotterdam
LEMON OIL—40 hf cs, National City Bank, Messina
2 cs, Messina
LEMONGRASS OIL—25 dms, Lo Curto & Funk, Puerto Barrios
LICORICE ROOT—113 bgs, Beirut
LIVERMEAL—400 bgs, National City Bank, Montevideo
560 bgs, H J Baker & Bros, Timaru
LOCUST BEAN GUM—300 bgs, P A Dunkel, Rotterdam
100 bgs, J L Quesada, Portimao
100 bgs, T M Duche & Sons, Rotterdam
MAGNESIUM CARBONATE—25 cs, Lo Curto & Funk, Antwerp
MANDARIN OIL—10 half cs, Messina
MANNA—9 cs, Palermo
MELAMINE—400 bgs, Ostrand
MENTHOL—25 cs, Kellys America Ltd, Santos
25 cs, Consumers Import Co, Santos
95 cs, American Far Eastern Syndicate, Santos
22 cks, Biddle Sawyer Corp, Southampton
50 cs, J Manheimer, Muroran
20 cs, Magnus Mabee & Reynard, Pusan
MERCURIC OXIDE, YELLOW—100 cs, D Hauser, Alicante
MERCURY—100 flks, Cadiz
METHYLNAPHTHALENE—3 cans, Terra Chemicals Inc, Rotterdam
MINERAL WAX—1.660 bgs, Hamburg
MONOCHLOROACETIC ACID—160 dms, Orlex Dyes & Chemical Corp, Bremen
330 dms, Bremen
MONTAN WAX—40 bgs, Hamburg
MUSTARD SEED—208 bgs, C Gulden, London
204 bgs, Bankers Trust Co, Messina
NAPHTHALENE—757 bgs, Koppers Co, Liverpool
736 bgs, J N Forker, Liverpool
1.000 bgs, Ore & Ferro Corp, Rotterdam
1.850 bgs, Reichhold Chemicals Inc, Antwerp
1.250 bgs, Rotterdam
833 bgs, Antwerp
OLEYL ALCOHOL—15 dms, Arista Oil Products Corp, Yokohama
PEPPER, BLACK—320 bgs, East India Trading Co, Alleppey
1.120 bgs, Mutual Spice Co, Alleppey
560 bgs, Reliable Mercantile Co, Alleppey
80 bgs, Kellys America Ltd, Alleppey
160 bgs, Polak Trading Co, Alleppey
800 bgs, Ludwig Mueller, Alleppey
240 bgs, California Commodities Corp, Alleppey
160 bgs, A A Sayia, Alleppey
320 bgs, Atlanta Textile Corp, Cochin
160 bgs, Mutual Spice Co, Cochin
320 bgs, George Uhe Co, Cochin
80 bgs, Mutual Trading Co, Cochin
640 bgs, Ludwig Mueller, Cochin
120 bgs, George Uhe Co, Singapore
320 bgs, A G Dunn, Alleppey
160 bgs, A G Dunn, Cochin
80 bgs, California Commodities Corp, Cochin
240 bgs, East India Trading Co, Cochin
1.540 bgs, Alleppey
400 bgs, Cochin
PEPPERMINT OIL—100 bgs, Kellys America Ltd, Yokohama
160 bgs, Apapa
120 bgs, Kobe
196 bgs, Lagos
PEPPERMINT, WHITE—70 bgs, Ludwig Mueller, Singapore
175 bgs, A G Dunn, Singapore
105 bgs, C Czarinkow, Singapore
PEPPERMINT LEAVES—52 bgs, S B Penick & Co, Hamburg
PETROLEUM OIL—48 dms, Asuncion
PHTHALIC ANHYDRIDE—1.200 bgs, Hudson Shipping Co, Rotterdam
POLYVINYL ACETATE—100 bgs, Colloids Inc, Sydney
POLYVINYL CHLORIDE—942 bgs, B F Goodrich, Havre
POTASSIUM CYANIDE—100 dms, Ugine Industries, Havre
POTASSIUM FERRICYANIDE—200 bbls, Atlantic Raw Materials, Hamburg
300 bgs, Filo Color & Chemical Corp, Rotterdam
POTASSIUM PERCHLORATE—100 dms, Ugine Industries, Havre
100 dms, Gefle
PYRETHRUM EXTRACT—44 dms, Mombasa
PYRITES—247 cks, American Metal Climax, Leixoes
QUEBRACHO EXTRACT—5.568 bgs, American Tanners Ltd, Buenos Aires
1.015 bgs, Barkey Importing Co, Buenos Aires
SAFFLOWER SEED—72 bgs, Oilseeds Inc, Durban
SAGE LEAVES—73 bls, Sokol & Co, Piraeus
589 bls, Split
SANDALWOOD—118 bgs, National City Bank, Cochin
40 bgs, Norwalk Mills, Bombay
5 bgs, H A Mack & Co, Bombay
SEEDLAC—200 bgs, Wm Zinsser & Co, Calcutta
100 bgs, Capitol Shellac Corp, Calcutta
SENNA LEAVES—200 bls, Meer Corp, Tuticorin
66 bls, S B Penick & Co, Bombay
49 bls, National City Bank, Port Sudan
SHELLAC—150 bgs, Gillespie Rogers Pyatt, Calcutta
50 bgs, Colony Import & Export Corp, Calcutta
150 bgs, Haeuser Shellac Corp, Calcutta
290 bgs, National City Bank, Hamburg
300 bgs, Mantrose Corp, Bremen
27 bbls, F H Paul & Stein Bros, Bremen
SIENNA, BURNT—300 bgs, Reichard Coulston, Leghorn
SILICON CARBIDE—32 cks, D C Andrews, Oslo
SODIUM CHLORITE—100 dms, Antwerp
SODIUM CYANIDE—160 dms, Ugine Industries, Havre
SODIUM GLUCONATE—200 bgs, Rotterdam
SODIUM SILICO FLUORIDE—400 bgs, Riches Nelson, Rotterdam
SODIUM VINYL SULFONATE—122 cs, W R Grace & Co, Rotterdam
STRONTONIUM HYDROXIDE—34 bgs, Terra Chemicals Inc, Bremen
STRYCHNINE ALKALOID—5 cs, Gallard Schlesinger, Calcutta
STYRENE ACRYLONITRIL—4.502 bgs, Muhlstein International, Bremen
SULFANILAMIDE—20 cks, Byron Chemical Co, London
TALC—15.000 bgs, Charles Mathieu, Genoa
TANNING EXTRACT—4.529 bgs, K Schroff, Fremantle
TARTARIC ACID—2.000 bgs, Leonhard & Brush, Barcelona
50 dms, Frank Samuel & Co, Marseille
THYME LEAVES—82 bls, Seek & Kabe, Marseille
TITANIUM DIOXIDE, ANATASE—800 bgs, Nylos Trading Co, Genoa
TRAGACANTH GUM—20 bgs, Tragacanth Importing Co, Khorramshahr
191 bgs, Am-Iran Corp, Khorramshahr
184 bgs, Khorramshahr
TRICHLOROACETIC ANHYDRIDE—1 dm, London
TRICHLOROETHYLENE — 700 tons, Chemical Manufacturing Co, Liverpool
TRIMETHYLXANTHIN—9 cs, Bremen
TURMERIC—200 bgs, S B Penick & Co, Alleppey
160 bgs, C M Van Sillevoldt, Cochin
80 bgs, A A Sayia, Cochin
80 bgs, Kellys America Ltd, Cochin
160 bgs, Internatio Rotterdam, Alleppey
480 bgs, Kellys America Ltd, Alleppey
240 bgs, M J Golombeck, Alleppey
560 bgs, A G Dunn, Alleppey
160 bgs, L E Ransom, Cochin
160 bgs, A G Dunn, Cochin
346 bgs, Alleppey
320 bgs, Cochin
UREA, SYNTHETIC—1.992 bgs, Chemical Manufacturing Co, Liverpool
VEGETABLE OIL—5 dms, Peder Devold Oil Co, Rotterdam
VETIVER OIL—4 cs, Givaudan Corp, Rotterdam
VIOLET LEAVES—7 bls, S B Penick & Co, Rijeka
WATTLE BARK—1.080 bls, Bowring & Co, Capetown
WATTLE EXTRACT—2.120 bgs, Barkey Importing Co, Mombasa
215 bgs, International Products Corp, Durban
WAX, SYNTHETIC—3.600 bgs, Moore & Munger, Durban
WOOL ALCOHOLS—60 cs, Traders Service Corp, Liverpool
ZINC CADMIUM SULFATE—1 cs, Thomas Electronics Inc, London
ZINC CHLORIDE—42 dms, Riches Nelson, Antwerp

## Los Angeles

CALCIUM CARBONATE—2.200 bgs, F D Davis Co, Antwerp
CARAWAY SEED—150 bgs, R J Spitz, Rotterdam
CASTOR OIL—109 tons, N American Continental Co, Santos
COPRA—1.500 tons, Vegetable Oil Products Co, Davao
4.200 tons, P X Smith, Davao
800 tons, American Trust Co, Davao
COPRA CAKE—2.248 bgs, Balfour Guthrie, Manila
PEPPER, WHITE—70 bgs, Internatio Rotterdam, Singapore
PEPPER, RED—200 bgs, Yokohama
UREA—6.250 bgs, Wilson & Geo Meyer & Co, Heroya
ZINC OXIDE—799 bgs, F D DaVis Co, London

## Philadelphia

ASBESTOS FIBER—400 bgs, N American Asbestos Corp, Durban
300 bgs, Chas Kurz & Co, Port Elizabeth
CASEIN—210 bgs, Ponta Delgada
300 bgs, Melbourne
CLAY, CHINA—7,400 tons, Fowey
DICALCIUM PHOSFATE—2.205 bgs, J H Schroder, Antwerp
1,325 bgs, Wessel Duval & Co, Amsterdam
MANGROVE EXTRACT—1,100 bgs, Saxe Cutch Corp, Sinagpore
MENTHOL—190 cs, Vick Chemical Co, Santos
METHYLETHYL KETONE—464 tons, Ugine Industries, Havre
TARTARIC ACID—50 bgs, Frank Samuel & Co, Marseille
VANILLA BEANS—65 tins, Camax Co, Singapore
WATTLE EXTRACT—430 bgs, Elkan River Plate Corp, Durban
861 bgs, International Products Corp, Durban
ZIRCON SAND—18.088 bgs, Brisbane

## San Francisco

CASEIN—500 bgs, E Lang, Buenos Aires
CLAY, CHINA—200 bgs, Hammill & Gillespie, Rotterdam
DEXTRIN—100 bgs, Stein Hall & Co, Rotterdam
300 bgs, Adhesive Products, Rotterdam
MONOSODIUM GLUTAMATE—120 cs, Ajinomoto Co, Yokohama
OURICURY WAX—221 bgs, Wm H Muller, Rotterdam

# Trade Names Chemicals & Specialties

—Continued from page 36

maldehyde resins are applicable where polystyrene is not, sources say.

In the electrical industry, specialty resins are serving as competition to older products.

American Cyanamid has developed a new product to meet government specification, MIL-P-15037-C for electrical grade laminating materials. The product, an experimental resin, "WE-8550-C," has excellent dielectric breakdown resistance, Cyanamid reports.

Cyanamid has also developed "Melaqua 600," a water-soluble melamine-acrylic resin vehicle for the formulation of baking enamels. The product is currently priced at 45 cents a pound and has met with good trade acceptance since its introduction about a year ago, the company reports.

On the raw materials level, Cyanamid pioneered the production of melamine crystal in this country. However, Allied Chemical Corporation is planning a 20 million pound plant, expected to come on stream early next year, and Reichhold Chemical Industries is reported about ready to go with a plant at Carteret, N.J. Initial capacity of the RCI unit has been reported at 20 million pounds with possible expansion to 50 million.

These developments, coupled with Cyanamid expansions at Wallingford, Conn., are expected to double melamine crystal capacity by 1962. Thus, with over-capacity in sight, and the unsettling influence of a government antitrust suit hanging over the industry (Department of Justice charged American Cyanamid Company conspired with six other firms to monopolize the melamine and melamine products business OPD, 10/10/60), trade observers see a trying marketing period for the near future But wide consumer acceptance of melamine and melamine products indicates that a market which has already come of age will continue a steady upward growth trend over the long pull.

## Trade Name Briefs

**ACRYLICS:** Rohm & Haas Company has lopped 10 cents off the price of "Primal AK-240," an aqueous, acrylic copolymer dispersion for leather finishing. The reduction establishes an l.t.l. price of 45 cents a pound, 18 percent less than the 55 cents quoted when the product was introduced a short time ago. According to R&H, the material is less thermoplastic than earlier "Primal" dispersions and, consequently, easier to handle during processing in tanneries.

**ADHESIVES:** Availability of a new vinyl copolymer emulsion called "Resin D-845" has been announced by Shawinigan Resins Corporation. The product is suggested for use in adhesive formulations, particularly those for pressure-sensitive and contact adhesives. Permanent dry tack and outstanding adhesion make it suitable for bonding difficult surfaces such as polyethylene and polypropylene, Shawinigan says.

**AEROSOLS:** A. E. Staley Manufacturing Company has completed test marketing of the company's "Sta-Flo" spray starch and is now offering the product in national distribution. According to Forrest W. Apperson, grocery products division manager, "test market reports and repeat sales have been good and results from extended market areas are equally favorable. Consumer demand is bringing a new convenience item to home laundry aids."

**EPOXY RESIN PAINTS:** Royal Dutch/Shell is testing out use of its epoxy resin paints for anti-corrosion coatings on steel on the new 48,000-ton oil tanker Ondina owned by Shell Tankers NV, a part of the Roya Dutch/Shell empire. The company expects the protection to last up to two years and to reduce markedly the cost of hull maintenance.

**LUBRICANTS:** Miller-Stephenson Chemical Company has developed a new mold release and lubricant which can be used for electronic potting and encapsulating, injection and compression molding of epoxy and phenolic resins and silicone rubber. Designated "S-122-C," the product is based on a recently perfected fluorocarbon dispersion that performs effectively at temperatures up to 500 degrees Fahrenheit, the company reports.

**SILICONE RUBBERS:** Imperial Chemical Industries, Ltd., is adding two new products to its line of silicone rubbers introduced last year. One is a special rubber for high temperature sealing and encapsulation of electronic gear and the other has properties making it easy to apply with a caulking gun. The latter product is reportedly readily bonded to metal surfaces.

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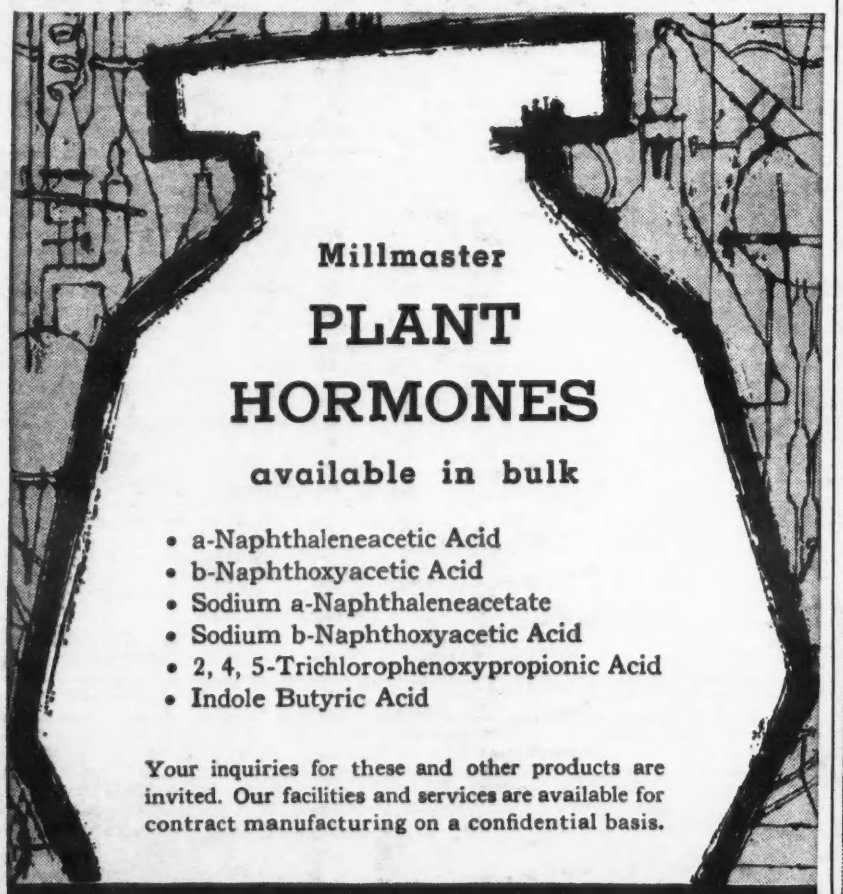

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